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ABSTRACT

The study was designed to isolate the perceptions and influences that relate to a student's decision whether to enroll in a vocational education course. A 42-page review of related literature is presented. The procedures used in obtaining data are discussed under the following topics: construction of the attitude questionnaire, development of data gathering instruments, selection of participants, collection of data, and analysis of data. The participants represented diverse geographic and economic areas in metropolitan Colorado and included 1,282 students, 1,031 parents, and 98 counselors. A detailed statistical analysis of the 15 hypotheses tested and an interpretation of the collected data is presented in a 65-page section with supporting tables. Fifteen conclusions related to the hypotheses and twenty-seven conclusions relating to a student's decision to enroll in a vocational education course are listed together with twelve recommendations and four suggested areas for further research. A selected bibliography is included. Nearly one-half of the document contains appended materials which include the research instruments, correspondence, occupational categories, number of students enrolled in trade and industry programs, and extensive tables related to the various factors and attitudes focused on in the study. (Author/EC)

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VARYING PERCEPTIONS TOWARD VOCATIONAL EDUCATION

By

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B. A. Colorado State College 1959	B. A. University of Northern Iowa 1960
M. A. University of Northern Colorado 1961	M. Ed. Colorado State University 1968

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A Dissertation Submitted in Partial Fulfillment of
The Requirements for the Degree of
Doctor of Philosophy

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June, 1976

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ABSTRACT

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ABSTRACT OF DISSERTATION

VARYING PERCEPTIONS TOWARD VOCATIONAL EDUCATION

The major purpose of this study was to isolate the perceptions and influences that relate to a student's decision whether to enroll in a vocational education course.

An attitude questionnaire was constructed to measure attitudes toward vocational education and knowledge of vocational education. The questionnaire was then checked for validity and reliability and found to be both valid and reliable.

The participants of the study were selected so the findings could be projected throughout the state of Colorado. The areas surveyed represented the major portion of the population, as well as diverse geographic and economic areas; and 1,282 students, 1,031 parents, and 98 counselors from the various areas were surveyed.

The following conclusions were drawn after analyses of the data obtained: (1) There is a significant difference in the attitude toward vocational education held by those enrolled in vocational education from the attitude held by those not enrolled in a vocational education course. (2) There is a significant relationship between the student's

decision to enroll in vocational education and his/her prior knowledge of vocational education. (3) There is a significant relationship between a student's career goals and his/her decision to enroll in a vocational education course. (4) There is a significant difference in the influence of parents, counselors, and peers on the vocational student and the non-vocational student. (5) There is a significant relationship between the students' and parents' attitudes toward vocational education. (6) There is a significant relationship between the parents' knowledge of vocational education and their attitude toward vocational education. (7) There is a significant difference in the parents' attitude toward vocational education and the counselors' perception of the parents' attitude. (8) There is a significant relationship between a student's grades and the counselor's attitude toward enrolling the student in a vocational education course. (9) There is no significant difference in the attitudes toward vocational education in the metropolitan areas of Colorado.

ACKNOWLEDGEMENTS

The writers wish to express appreciation to the many people who contributed to this study--Dr. Robert N. Hubbell, Advisor for Walden University and Coordinator, West Colorado Regional Mental Health Center, for his helpful suggestions and guidance; Dr. Mario D. Fantini, Summer Coordinator of Walden University and Dean of State University College, New York, for his assistance as summer advisor; Dr. Calvin M. Frazier, Colorado Commissioner of Education, for his support and interest in this study; Dr. Douglas Sjogren of the Research Department at Colorado State University, for his advice; Dr. Ivan E. Valentine, Professor at Colorado State University, for allowing us to review his data gathering instrument; Dr. Dwain L. Thatcher, Research Supervisor of Colorado Springs School District Number 11, and Dr. E. B. Oppermann of the University of Colorado, Colorado Springs, for their consulting verification of the instrument and data results; James Brown, Jr., and his wife Susan for their contributions to this study; and Bernard A. Gannon for his perusal of the paper for mechanics and grammar.

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Special thanks and appreciation must go to Frieda Clark and Twila Brown, our wives, for their countless hours of compiling, typing, and listening, in addition to their patience, understanding, and encouragement. Without them we could not have completed this study.

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CHAPTER I

INTRODUCTION

Statement of the Problem

Many students in the secondary school who could benefit from vocational education courses do not take them. It was pointed out at the International Conference on Education in Geneva in 1975 that, in the United States,

> About fifty percent of our high school students are in the so-called general track, which prepares them neither to go to college, nor to enter a job. Nearly 2,500,000 students leave . . . each year without adequate preparation for careers.[1]

During this time of high unemployment, there are jobs available in the technical and vocational areas for those with the necessary training and skills to do them. The U. S. Department of Labor estimates 45 million job openings between 1970 and 1980--about 15 million new jobs and another 30 million to replace workers who retire, die, or leave the labor force for other reasons. Most of these jobs won't require a college degree, but nearly all of them will require some specialized training.[2] Many secondary students who could qualify for these jobs through enrollment in vocational education courses do not take them, while other students do take advantage of the opportunities to take these courses. Smoker (1974), as quoted in The PTA Magazine, says,

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[1] "Secondary Schools, Training & Jobs," Intellect, January 1975, p. 212.

[2] David E. Smoker, "Let's Get Serious About Vocational Education," The PTA Magazine, March 1974, p. 39.

> At the very heart of our problem is a national attitude that says vocational education is designed for somebody else's children. This attitude is shared by businessmen, labor leaders, administrators, teachers, parents, students.[3]

Secondary students' decisions to enroll in a vocational education course would appear to be influenced by their perceptions and the perceptions of those who most influence their decisions. The problem, then, is to identify those who most influence the students' decisions and the perceptions held by the students and those influencing them.

Need for the Study

According to data in The Guide to Vocational Education in America: Trends to 1978, the average annual number of job openings by 1978 in occupations for which students of vocational education are prepared is projected to be 1,180,056 in the United States and 50,784 in the State of Colorado. A report by the U.S. Office of Education found that in 1973, 8,674 jobs were left vacant in Colorado because there were not enough students completing vocational education programs to fill them. The projected statistics for the years 1974 to 1978 show that secondary schools in Colorado will need to enroll and train 1,885 more students per year to meet the vocational occupational requirements.[4] This would seem to indicate that there is a need to increase the number of students enrolled in vocational education programs to keep up with employment demands. It is also significant that the government " . . . spends almost four dollars for retraining unemployed workers for every dollar it spends on preventive programs --those that prepare young people for employment at the beginning of their careers."[5] More emphasis on increased enrollment in vocational education at the secondary level should provide a better return for every taxpayer's investment. A study to determine the varying perceptions of students, parents, and their counselors toward vocational education should provide the information necessary to work toward changing or modifying these perceptions held by the various groups, and thus bridge the gap between the need for more students in vocational education and their willingness to enroll in vocational education programs.

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[3] Ibid.

Several limited studies have been completed in isolated areas of Colorado related to attitudes or perceptions toward vocational education. A study of the metropolitan areas of Colorado, where most of the vocational programs are found, would provide a more complete picture of the perceptions toward vocational education in Colorado.

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[4] Jonathan Hoffman, The Guide to Vocational Education in America: Trends to 1978 (Westport, Conn.: Market Data Retrieval, Inc., 1975), pp. 168-177.

[5] Mary Costello, "Education for Jobs," Editorial Research Reports on the American Work Ethic, in Congressional Quarterly, Inc. (Washington, D. C.: n.p., 1973), p. 115.

Dr. Calvin M. Frazier, Commissioner of Education, Colorado Department of Education, stated:

> I am particularly interested in this topic because of its relationship to our broader career education - vocational education cooperative effort here in Colorado. As we work to develop greater exploratory efforts in the early secondary years, the transition into a more specific training program becomes very critical. The study by Mr. Brown and Mr. Clark should make a real contribution to the state.[6]

Purpose of the Study

The major purpose of this study was to isolate the perceptions and influences that relate to a student's decision whether to enroll in a vocational education course, which would provide a starting point for modification of those perceptions and influences which seem to deter students who might benefit from enrollment in vocational education. The findings should be useful in the following ways:

1. To help in evaluating the need for and content of informational programs for students and parents
2. To help in evaluating counselor effectiveness in counseling students concerning vocational education
3. To help in evaluating the pre-vocational programs now offered

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[6] Calvin M. Frazier, Commissioner of Education, Colorado Department of Education, personal letter dated July 7, 1975.

4. To help in formulating plans for pre-vocational programs for the future

Limitations

This study was limited to:

1. Six metropolitan areas of Colorado with vocational programs
2. Students in grades eleven and twelve in both comprehensive high schools and area vocational schools
3. Parents of students answering the questionnaires administered to the students
4. Counselors of students answering the questionnaires administered to the students

Definition of Terms

Area vocational school--a school for the educating of students in subjects of a vocational nature, and which draws students from various secondary schools in the geographic area

Attitude--a feeling or conviction about or toward someone or something

Career education--education provided to help students become familiar with the value, opportunities, and entry level skills associated with various careers available

Comprehensive school--a school which offers students in the same institution academic and vocational courses

Cooperative education--a program in which schools and business or industry cooperate to provide part-day classes and part-day on-the-job training

Counselor--that person in the school most responsible for helping the student decide upon courses

Group--a body of persons consisting of either the vocational or non-vocational student (but not both), his or her parents, or his or her counselor

Metropolitan areas--the following cities in Colorado: Boulder, Colorado Springs, Denver, Fort Morgan, Grand Junction, and Pueblo

Non-vocational parent--the parent of a student not enrolled in a vocational program

Non-vocational student--any student enrolled in grades eleven or twelve who is not enrolled in a vocational program

Pre-vocational--programs which provide knowledge and understanding to the student about the world of work

Secondary student--a student in grades eleven or twelve in the public school system in Colorado

T & I, Technical--Division of Trades and Industries/Technical, Colorado State Department of Vocational Education

Vocational education--those courses at the high school level designed to teach a student the entry level skills needed to get a job in a trade or industry

Vocational parent--the parent of a student enrolled in a vocational program

Vocational student--any student in grades eleven or twelve who is enrolled in a vocational or technical program funded by the State Department of Vocational Education

Note: In this study, the following terms were used synonymously:

1. Vocational education, occupational education
2. Attitude, perception

Objectives

The major purpose of this study was to determine the attitudes held by students and those who influence students' decisions about enrollment in vocational education. The study answered the following research questions from information gathered in the metropolitan areas of Colorado:

1. Is there a difference in attitude toward vocational education between those students taking vocational education and those who do not?
2. Is there a relationship between the student's decision to enroll in a vocational education course and his/her prior knowledge of vocational education?
3. Is there a relationship between a student's career goals and his/her decision to enroll in a vocational education course?
4. Is there a relationship between the income level of the family and the student's attitude toward vocational education?

5. Is there a relationship between the student's ethnic background and his/her attitude toward vocational education?
6. Is there a difference in the influences of parents, counselors, and peers on the attitude toward vocational education of the vocational student and non-vocational student?
7. Is there a relationship between the parents' attitude toward vocational education and the student's attitude toward vocational education?
8. Is there a relationship between the parents' knowledge of vocational education and their attitude toward vocational education?
9. Is there a relationship between the educational level of the parent and his/her attitude toward vocational education?
10. Is there a relationship between a counselor's knowledge of vocational education and his/her attitude toward vocational education?
11. Is there a relationship between the counselors' work experience outside the academic world and the ratio of counselees enrolled in vocational education?
12. Is there a difference in the ratio of students enrolled in vocational education courses by those counselors with a favorable attitude toward vocational education and those with

a less favorable attitude toward vocational education?

13. Is there a difference in the parents' attitude toward vocational education and the counselors' perception of the parents' attitude toward vocational education?
14. Is there a relationship between a student's grades and the counselor's attitude toward enrolling the student in a vocational education course?
15. Is there a difference in the attitudes of students, parents, or counselors toward vocational education among the metropolitan areas of Colorado?

Assumptions

The underlying assumptions of this study were:

1. The instruments used were valid and reliable
2. The responses to the questionnaires accurately reflected the perceptions of those surveyed
3. The samplings used were representative of the population regarding high school students, their parents, and counselors in the state of Colorado

Dissertation Organization

The chapters that follow will include a review of pertinent literature in Chapter II; a discussion of research design and methodology in Chapter III; a presentation of findings in Chapter IV; and summary, conclusions, and recommendations in Chapter V.

CHAPTER II

REVIEW OF RELATED LITERATURE

Introduction

Vocational education is training for the world of work that does not require a bachelor's degree. This type of education has emerged during the past few years to become a subject of increasing public concern. Sidney P. Marland, Jr., former U.S. Commissioner of Education, called vocational training the number one priority in education when he spoke before the National Association of Secondary School Principals in Houston, Texas. He said, "Eight out of ten high school students should be getting occupational training of some sort."[1] The Department of Labor reports that eighty percent of all jobs up to 1980 will require less than a bachelor's degree, but very few will be available to the unskilled.[2] Without some kind of vocational training, many young people will be unable to find work.

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[1] Russell Flanders, "Employment Patterns for the Seventies," Compact, August 1970, p. 7; reprinted in Editorial Research Reports on the American Work Ethic, Congressional Quarterly, Inc. (Washington, D.C.: n.p., 1973), p. 103.

[2] Jonathan Hoffman, The Guide to Vocational Education in America: Trends to 1978 (Westport, Conn.: Market Data Retrieval, Inc., 1975), p. 159.

Despite the opportunities, many students apparently needing or desiring vocational education do not receive it. The purpose of this study was to help identify and compare the varying perceptions and concerns existing as students contemplate enrollment in vocational offerings.

Focus was directed toward determining the varying perceptions or attitudes toward vocational education of students, their parents, and their counselors in relationship to the students making a decision to enroll in vocational education. A brief overview of related literature relevant to this research will be presented in three fields of inquiry: The historical development, or evolution, of vocational education; society's perceptions toward vocational education; and various methods of attitude measurement. It is hoped that through the development of these three areas, a better understanding concerning the purpose of this research will be attained.

The Historical Development of Vocational Education

Two important and related topics are predominant in reviewing the associated literature concerning the historical perceptions toward vocational education. These are the evolution of vocational education and the emergence of federal assistance for vocational education through legislation.

The Evolution of Vocational Education

Historical literature is lacking in information which presents a definitive evolution of the formation of trends and perceptions toward vocational education as it has become a part of our national system of education. Federal legislation and the social stigma toward vocational education will be reviewed later. The main objective here is to summarize the historical development of vocational education, with concentration directed toward the history of the various methods adopted to train skilled workers and the interrelated history of vocational guidance.

The discipline of learning certain basic skills, such as those used in vocational education, may have developed thousands of years before the birth of Christ when metals such as copper and bronze replaced stone and bone for axes, hammers, knives, and other tools and implements. Early in history, one's occupation was often determined by one's birth. A child followed the trade of parents, another relative, or a neighbor. The methods of learning skills were by observation, imitation, and innovation. From this meager beginning of basic skill learning emerged the skilled workers of our technical society.

The change from using basic skills to more refined skills was developed by the Greeks who ultimately emerged with a "work force." The "work force" was made up of many skilled craftsmen who built the numerous public works which resulted in such splendid structures as the Parthenon and Mausoleum at Halicarnassus. This type of vigorous public works programs continued through the Middle Ages when many magnigicent cathedrals were constructed by the artisans. It was at this time that the Guild system developed, and for a long part of history it continued as an essential element in societies. Taylor (1919), in his book *The Guild State*, wrote, "Since men first became draftsmen and industrialists, the universal judgement of mankind has accepted the Guild system as the most rational manner in which the work of the world can most easily be done."[3] Guilds were the predecessors of our organized trades and labor unions in our present economic system.

As the trade and commerce system became more complex and industry developed, there seemed to be a need for more specialized skills, and a more efficient method of teaching them came about. The educational demands of laborers set in motion the forces which brought about a reassessment of the significance of work and a system of apprenticeship to teach the skills. Job skills were inculcated by father instructing son and mother teaching daughter, or by arrangements under which a beginner worked as a helper to a journeyman or master-craftsman. This theory of training worked, except, "The apprentice could learn only what his master knew and was able to transmit."[4] It is interesting to note that in the United States, at the time of our nation's founding in 1776, and for several decades thereafter, "The apprenticeship system was the foremost way of extending training in skills and work in a trade,"[5] even though the Industrial Revolution had occurred earlier in Europe.

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[3] G. R. Taylor, *The Guild State* (New York: The Macmillan Company, 1919), p. 11.

[4] Sven Grabe, "Secondary education, training and employment: an historical interpretation," *Prospect*, Autumn 1973, p. 329.

History attests to the fact that as the apprenticeship system accelerated and the development of capitalism increased in the free countries of both Europe and the United States, the Industrial Revolution came about. The Industrial Revolution caused the shifting of production from the home to the factory and from handcrafts to power machinery. The rapid development of industry changed the occupational needs of the skilled laborer, thus reducing the demand for skilled craftsmen and sending the apprenticeship system into relative decline. With the decrease of the apprenticeship system, it was necessary to design new types of schools for the education of the nation's workers. Toward the end of the nineteenth century, schools for vocational training were organized on a private basis. The curricula established in the private schools later began to be incorporated into the public schools and the progressive education movement was inaugurated.

Closely related to the progressive educational movement is the evolution of vocational guidance. Barry and Wolf (1963), in Modern Issues in Guidance Personnel Work,[6] indicated that, although the process of guidance began earlier, the rapid industrialization that occurred in this country between 1890 and 1920 brought about the need for guidance and its relationship to vocational education. The wartime activities during this period of history also fostered the growth of some areas of vocational guidance, such as job specification, occupational information, and job placement.

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[5] Paul H. Douglas, American Apprenticeship and Industrial Education (New York: Columbia University Press, 1921), p. 1.

Further, Barry and Wolf pointed out that vocational guidance has since developed with a dual purpose; one to assist the students in making wise vocational choices; and the other to help educators select students who could benefit most from such training. The concept of vocational guidance was a means of helping each student choose an occupation, prepare for it, enter it, and progress in it. This concept agrees with the theories of John Dewey that indicate that students can practice the social skill they would require in later life.

John Dewey is recognized as the most influential leader of the progressive education philosophy. In his book Education Today, he remarked, " . . . The movement for vocational educations conceals within itself . . . forces . . . which would utilize the public schools primarily to turn out more efficient laborers in the present economic regime, ..."[7] In his approach toward vocational education, Dewey believed that experience in training was of great educational value. By reflecting on the experience, learning is achieved and individuals can relate to and improve their environment. Dewey also stressed the need for a functional relationship between classroom learning activities and real life experiences.

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[6] Ruth Barry and Beverly Wolf, Modern Issues in Guidance Personnel Work (New York: Bureau of Publications, Teachers College, Columbia University, 1963), pp. 12-34.

During the same period as the progressive education movement (1890-1910), legislation by the government proposed that public funds be used to provide vocational education for those secondary students who did not expect to go to college. Public support began to grow for legislation to provide funds for public schools to train young people in various occupational skills.

In the early 1900's, this initial federal legislation was the impetus that brought about both continued development and new concepts toward vocational education. This legislation began a new era in the struggle to develop a dynamic system of free public vocational education to support and promote the need for skilled workers and technicians in our civilization.

The Emergence of Federal Assistance for Vocational Education Through Legislation

The development of federal legislation for vocational education in the public schools revolved around a relatively few educators and legislators who labored for many years to create a workable program and to obtain its acceptance.

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[7] John Dewey, Education Today (New York: G. P. Putnam's Sons, 1940), pp. 131-132, quoted in Man/Society/Technology, December 1975, inside front cover.

Swanson (1966) said that vocational education must be relied upon to secure stability and progress in a democracy. Vocational education must also be considered as a special form of education concerned with transmitting skills and knowledge to society. The amount of skill and technical knowledge used in creating products would be limited only by the extent to which skill could be developed and utilized through this unique structure of education. Swanson said, "We can set no bounds upon the applications of technical knowledge, nor upon the limits of human skill."[8]

History continues to prove that the wealth of a nation is dependent on the means " . . . by which skill is developed, technical knowledge obtained and applied, and science and invention promoted."[9] The changing demands of developing industry require that a continuous process of adjustment for new skills and new technical knowledge be transmitted by education.[10]

This status of educational philosophy brought forth the demand for rapid adaptation of the worker to a job.

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[8] J. Chester Swanson, Development of Federal Legislation for Vocational Education (Chicago: American Technical Society, 1966), p. 6.

[9] Ibid.

[10] Ibid., p. 13.

In turn, it accelerated the public support toward federal legislation for vocational education.

Most of the growth in vocational education occurred within the past two decades, but public support of vocational education dates back more than a century. As early as the 1860's, the industrial potential of America began to alter the perceptions toward work because of the increasing need for trained technical manpower. To accommodate the new demand for specialization skills, Congress passed the Morrill Act of 1862, which was a beginning toward lessening the emphasis on academic programs. Over the next forty-four-year period, several Acts were adopted by the federal government making general funding grants, virtually without restrictions, to encourage states to set up land-grant colleges and other institutions to teach agriculture and the mechanical arts. The following Acts were expansions of the Morrill Act and were closely related to the development of vocational education:

1. The Hatch Act (1887), an Act with the designated purpose to aid in acquiring and diffusing useful and practical information respecting the principle and application of agricultural science
2. The Second Morrill Act (1890), which authorized the application of a portion of the proceeds from the sale of public land, under the first Morrill Act, to the more complete endowment

and support of the land-grant colleges, for the benefit of agriculture and mechanical arts

3. The Adams Act (1906), an enactment for the increased appropriation of the Hatch Act
4. The Nelson Amendment (1907), which provided an increase of federal aid to the land-grant colleges
5. The State Marine School Act (1911), which provided training for those planning a seafaring career (This Act had implications relevant to vocational education because it introduced the principle of matching federal aid with appropriations of funds at the state and local levels.)
6. The Agricultural Extension Act (1914), called the Smith-Lever Act, which provided for a program of extension work in agriculture and home economics

In the early nineteen hundreds, the public reaction to college funding was, "If the federal government could support such instruction in the colleges, they insisted it could do no less at the secondary level."[11] A movement began in 1905 to establish funds for industrial education in the high schools. Governor William L. Douglas of Massachusetts was authorized to appoint a commission to investigate educational needs for different levels of skill and responsibility in the various industries of the state. A statement setting forth the duty of the commission said,

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[11] Edwin L. Rumpf, "The Voc Ed Breakthrough," American Education, January-February 1975, p. 23.

> They shall investigate how far the needs are met by existing institutions and shall consider what new forms of education effort may be advisable and shall make such investigations as may be practicable through printed reports and testimony of experts as to similar educational work being done by other states, by the United States government, and by foreign governments.[12]

The resulting report of the Douglas commission prompted new laws for a system of free training for job employment. By 1907, changes in industrial education ensued. Congressman Davis of Minnesota introduced a Bill which would " . . . provide teachers for vocational subjects in normal schools and to appropriate money and regulate its expenditure."[13] It is interesting to note that this Bill contained the first reference to "vocational education."

As commerce and industry developed, a need for more specialized skills increased, and more efficient methods of teaching them resulted. Congress created a commission on national aid to vocational education with the adoption of the Smith-Lever Act in 1914. The resolution authorized the President to appoint a commission composed of nine members. Its duties were to study the difficult problems involved in a national system of federal aid to the states for secondary education which were not encountered in the system providing aid for land-grant colleges. In less than sixty days, the Commission on Vocational Education presented to Congress its findings and recommendations for a " . . . federally aided system of vocational education based on state aid and cooperation."[14] These provisions were subsequently enacted into federal law in 1914 by unanimous sanction of Congress.

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[12] Twenty-fifth Annual Report of the U.S. Commission of Labor (1910). Revised Laws of Massachusetts (Washington, D.C.: Government Printing Office, 1911), quoted by Swanson, Development of Federal Legislation for Vocational Education, p. 15.

[13] Davis Bill, 60th Congress, 2nd Session, H.R. 26737, January 20, 1909 (Washington, D.C.: Congressional Record, 1909), p. 1196, quoted by Swanson, Development of Federal Legislation for Vocational Education, p. 75.

It was not until 1917 that high schools received direct federal funds for vocational education. On February 23, 1917, with the growing background of wartime production needs, Congress passed and President Wilson signed the Smith-Hughes Act. The money granted was intended primarily for salaries of trade, agricultural, and home economics teachers. In addition, money was provided to the newly created Federal Board for Vocational Education to administer the Smith-Hughes legislation and to conduct research and surveys.

The time-honored procedure of making changes in existing laws generated the Smith-Hughes mandates which were supplemented by subsequent legislation, such as:

1. The George-Reed Act (1929), a bill which would increase the amount of federal aid to the states and further development of vocational education

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[14] Swanson, Development of Federal Legislation for Vocational Education, p. 26.

2. The George-Ellzey Act (1934), for further development of vocational education in the midst of the depression
3. The George-Dean Act (1936), which recognized the public schools need for further extension of their vocational programs in all fields, including distributive education. ("The set-aside for distributive education was the first recognition, at the federal level, that services were becoming as vital to our economy as production occupations."[15])

Except for minor provisions, all these laws were superseded by the George-Barden Act of 1946. The law, better known as The Vocational Education Act of 1946, provided the continuing resolutions of the Smith-Hughes Act of 1917 and added that federal funds could be used for a variety of specified purposes in the secondary level programs. "The chief characteristic of the George-Barden Act as contrasted with previous vocational education legislation is flexibility. Some of the specific limitations on the use of funds were omitted from this Act and provisions were included to allow for new phases of work."[16]

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[15] Hoffman, The Guide to Vocational Education in America: Trends to 1978, p. 6.

[16] Public Law 586, 79th Congress, 2d Session, S. 619, quoted by Swanson, Development of Federal Legislation for Vocational Education, p. 90.

The federal government indicated its continuous concern for implementation of vocational education during the period of 1947 to 1961. During this fifteen-year period, a number of Bills relating to vocational education were introduced and eleven public laws directly affecting programs of vocational education were enacted.

One of the newest fields in education was given birth in this country with the passage of the National Defense Education Act of 1958, which made funds available for programs related to the education of technicians and development of area vocational schools. The area concept in vocational education developed providing that vocational schools be established to serve more than one school district. These are known today as area vocational schools. The Act also declared that technical education should begin training people for sub-professional occupations.

Despite the growth of vocational education funding, non-vocationally oriented education continued to be the major goal of most schools. In the early 1960's, President John F. Kennedy said that American education was producing an "army of educated unemployables"[17] without any saleable job skills even though thousands of skilled jobs needed to be filled.

As a result of the acute skilled manpower problem, Congress passed two major sections of legislation, the 1962

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[17] Hoffman, The Guide to Vocational Education in America: Trends to 1978, p. 6.

Manpower Development and Training Act, and the Economic Opportunity Act of 1964, designed to provide skills training to the unemployed and the underemployed. In essence, the Acts were emergency programs for out-of-school unemployed.

The problem in the schools was that of not providing adequate training to meet manpower requirements. The academic curriculum needed to be complemented with more occupational training for jobs available upon graduation. To provide skills training in the formal educational setting, the Vocational Education Act of 1963 was passed. This Act authorized funds to be used for:

1. Training persons attending high school
2. Preparing high school graduates for job entry
3. Retraining persons in the labor market for advancement or job stability
4. Developing programs for persons with special needs
5. Supporting teacher training, program evaluation, model programs and the development of teaching materials

This Act has been very beneficial for vocational education and has been expanded and extended by each legislative session since the original approval. The many Acts provided more vocational education training in relationship to national economic needs.

In 1968, with the social and racial upheavals, a more specific target population in need of vocational education was identified--the disadvantaged. It was felt that unemployment and job immobility among the nation's poor were the root causes of riots and conflagrations throughout America.

Accordingly, the Vocational Education Act (VEA) Amendments of 1968 gave highest priority to the training of the disadvantaged.

No legislation since the 1968 Amendments has been proposed for federal support of vocational education, but each year Congress extended the VEA Amendments with continuing Resolutions.

It is certain that new vocational education legislation will be enacted in the fiscal year 1976. According to Office of Education officials and legislative aides, President Ford favors consolidating all present vocational education titles into one total budget.[18] Under this block-grant philosophy, there would be no funds specifically set aside for the disadvantaged or any other target groups. The Bill will probably reflect some consolidation, with additional categories.

In anticipation of President Ford's block-grant proposal, the American Vocational Association (AVA)[19] has written a counterproposal which calls for the restructuring of vocational educational funding, consolidation of all target-group funding, increase in federal funding each year to 1980, and implementation of an integrated career education program.[20] "This program," said Caroline Bird, "is one of the alternative solutions to the myth that every American, ages 18-22, should go to college."[21]

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[18] Hoffman, The Guide to Vocational Education in America: Trends to 1978, p. 12.

[19] American Vocational Association, Inc., 1510 H Street, N.W., Washington, D.C. 20005.

The Ford proposal and the AVA legislation will most likely be major Bills introduced during the 94th Congress. Burkett, AVA Executive Director, says, "Proposals to amend the Vocational Education Acts of 1963 and 1968 add up to an almost complete rennovation of existing federal legislation for vocational education."[22]

The federal government is accepting responsibility jointly with state and local governments to support vocational-technical education through funding. If the educational leadership can use funds available to develop effective manpower training and more economic security through vocational education, it will be a productive investment of the government.

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[20] Career education is a concept that has gained favor among an increasing number of educators. It is promoted actively by Dr. Sidney Marland, former U.S. Commissioner of Education. Career education can be defined as a life-long education for life and work. Beginning in the elementary grades, the students are made more aware of the variety of careers available to them. After awareness, the students are exposed to orientation programs in the middle school years, in which they receive overviews of careers, with some hands-on experiences. As a result of these orientations, the students may choose areas of specialization for training in job preparation.

[21] Caroline Bird, The Case Against College (New York: David McKay Company, Inc., 1975), p. 3.

[22] Lowell A. Burkett, "Latest Word from Washington," American Vocational Journal, January 1976, pp. 13-14.

Society's Perceptions Toward Vocational Education

Schools in all societies are concerned with the transmission of cultural heritages and with the socialization of youth. But in the United States, there is an additional emphasis on the students and their needs and desires for effective living in a complex technical society. In addition to the traditional academic components of the secondary school, a majority of the schools now offer students the opportunity to avail themselves of additional experiences, one of which is vocational education.

One of the major problems of education today is how to reach students who could use and benefit from vocational education. The decision for a student to enroll in vocational education is related to perception and attitude formation. It is dependent upon a number of factors including peer relations, environment, counselor guidance, parental values, status, and educational influences.

Literature relative to the various components of society and their influences on a student to enroll or not to enroll in vocational education will be considered here. Attitudes or beliefs of students, parents, counselors and other educators, industry and the general public toward vocational education will be examined, with the hope that such examination will give a better understanding as to why students make the decisions they do concerning their future education.

Some feel that vocational education is faced with a lack of prestige which stems from societal conceptions present from its beginnings. Over the years, vocational education has been regarded as somehow less worthy than other aspects of learning. In A History of the Problems of Education, Brubacher (1966) maintained that this is a remnant from Athenian culture. The Greeks excluded vocational training from the school curriculum. "True," said Brubacher, "there were artisans and tradesmen who worked as freemen rather than as slaves and who accepted pay for their services. Yet these men were degraded by the fact that there were many skilled slaves with whom they were in competition. But above all, they were rendered servile by the fact that they worked with their hands."[23]

The fact remains that education and work were seen as being unrelated realms, a concept that seems to have persisted over the years. No formal education whatever was necessary for those who labored with their hands. For centuries, all they needed to know could be learned informally in the course of their daily tasks. One realm was an education of thinking; the other realm an education of doing. This has developed into the foundation for the measurement of effectiveness in education. The more purely mental an educational endeavor, the more valuable it is in the respect accorded to it.

This was the origin of dualism in the classes of society--one class of working with one's hands, the other class of learning by thinking. Brubacher continued, "There is no middle ground in this dichotomous class structure."[24] The kinds of education befitting these two social classes have many implications concerned with the perceptions for today's education. Stallworth (1972), in his article on the stigma toward trades and other vocations, said, "The stigma is real and cannot be predicted to vanish just because it is troublesome, even with an effective propaganda program designed to eliminate it, until certain social conditions vanish from the American scene."[25] He also observed that certain occupations bear this social stigma and are shunned by those who might do well in pursuing them. Generations of American youths have been told that going to college is the gateway to fuller participation in society. Hyde (1968), who concerned himself with counselors' perceptions toward post secondary vocational and technical education, felt that this stigma developed from the structure of American schools which were patterned after the academic schools of England. "American schools," he commented, "were designed to provide a continuous educational program from elementary school to the university. Success in this school system was measured by progress up the academic ladder."[26]

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[23] John S. Brubacher, A History of the Problems of Education (New York: McGraw-Hill Book Company, 1966), p. 83.

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[24] Ibid.

[25] Herbert E. Stallworth, "Trades and Other Vocations, Why the Stigma?," The Clearing House, December 1972, p. 215.

[26] Eldon Keith Hyde, "School Guidance Counselors' Perceptions of Post Secondary Vocational and Technical Education and Factors that Contribute to These Perceptions" (Colorado State College, Greeley, Colorado, Summer 1968), p. 8.

The apparent lack of status for vocational education in the secondary schools, where college preparation is stressed, may be the rationale for the detrimental concepts which have developed toward vocational education. Rumpf stated in a 1975 article in American Education that, "Vocational education . . . was regarded as somehow less worthy than other aspects of learning and therefore not appropriate as a classroom enterprise."[27] This point of view has persisted over the centuries.

Educational prestige is an important factor of our society, and traditionally vocational education has been looked down upon by many academic educators and the public. The National Advisory Council on Vocational Education, in its first report, stated that:

> At the very heart of our problem is a national attitude that says vocational education is designed for somebody else's children. This attitude is shared by businessmen, labor leaders, administrators, teachers, parents, students.[28]

A review of what these various segments of society feel is essential for an overall picture of attitudes toward vocational education.

Industry and Business

Industry and business over the years have shown an interest in occupational training. Students in cooperative programs are able to apply what they have learned in the classroom to actual job conditions. In addition to participating in cooperative programs, many large companies are establishing their own programs to train students in programs called on-the-job training.

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[27] Rumpf, "The Voc Ed Breakthrough," p. 22.

[28] David E. Smoker, "Let's Get Serious About Vocational Education," The PTA Magazine, March 1974, p. 38.

It is generally acknowledged that cooperation between secondary education and industry is of benefit to both parties, and that industry has a positive perception toward vocational education. It is also quite common for industrial enterprises to present secondary schools with teaching materials. The main point of this is not to save public money but rather to develop exchanges which will enable industry to recruit young staff of good quality. Many large enterprises report that they are very satisfied with the results of this policy.

Another important part industry should play in the guidance of students is supplying career information at different stages in their education. Flandre (1973) said:

> Secondary school pupils ought to be able to obtain all the information they need about employment prospects, the means and avenues of access and the qualifications required, the pay scales and the opportunities for social and professional advancement offered by particular jobs.[29]

He also advised that in order to bridge the gap between school and working life, it is important that there should be real contact between education and employers, and that there should be an exchange of views to prevent misunderstanding toward skill occupations.

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[29] A. T. Flandre, "Secondary education, training and employment: vocational training--institutions or cogs in the economic machinery?," Prospects, Autumn 1973, p. 346.

One aspect of industry which does not support the goals of vocational education is the labor unions. Hyde, in his study on perceptions of vocational education, stated, "Labor unions have not been favorable to occupational education. They have felt the need for control of the manpower entry into trades and have not encouraged job training outside their own apprenticeship programs."[30]

Several of the general public's views are contemporary issues in vocational education. One of the basic controversies in vocational education is the extent of public responsibility for training in specific occupations skills which also may be acquired through private arrangements or industry. Purnell and Lesser (1969) listed several factors to support this controversy of critics' feelings toward vocational education programs:

1. Vocational programs fail to train students adequately
2. Facilities are too costly and become obsolete
3. Placement in a vocational program tends to lower social expectations for these students

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[30] Hyde, "School Guidance Counselors' Perceptions of Post Secondary Vocational and Technical Education and Factors that Contribute to These Perceptions," p. 9.

Purnell and Lesser's study results indicated that many of the critics' stereotypes toward vocational education were unwarranted and inaccurate.[31]

Parents

The prestige ascribed to an occupation by parents is a source of great influence upon students' perceptions and knowledge about vocational education. As noted by Smoker, parents tend to guide their children away from careers in common labor, industry, service trades, and sub-professions. Repeating again what Smoker said: "At the very heart of our problem is a national attitude that says vocational education is designed for somebody else's children."[32] He continued that many students who make inappropriate choices are victims of the national yearning for educational prestige, often because the folks always wanted them to go to college.

Roe, in her study of early determinates of vocational education, agreed. In her theory that vocational choice is affected because a strong relationship between parent and child exists, she stated that, "Early experience and later attitudes, interests and other personality factors . . . affect the ultimate vocational direction of the individual."[33]

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[31] Richard F. Purnell and Gerald S. Lesser, "Work-Bound and College-Bound Youth: A Study in Stereotypes" (Lab. of Human Development, Harvard University, Cambridge, Massachusetts, 1969), pp. 8-9.

[32] Smoker, "Let's Get Serious About Vocational Education," p. 38.

[33] A. Roe, "Early Determinates of Vocational Choice," Journal of Counseling Psychology 4, 1957, p. 215.

Occupational dissatisfaction of the parents may be another factor in the formation of parental influences upon the child. Kazanas and Wolff (1972) concluded that the dissatisfied worker is thus a probable source of bias perceptions upon the career choice of his children in school.[34] Studies of parental influence on vocational interest by Hollender (1972) suggested that parental influence in younger high school years (junior high school) had a positive correlation with occupational interest, and that, "The greater the number of positive vocational interests the father has, the greater the number of the son's total interests."[35] Other facts pointed out in the study were that college students tended to come from smaller families, and that the father's occupation had influence in the student's vocational interest.

Academic instruction versus occupational instruction is a continuing controversy. This issue was presented in a segment of the CBS television program "60 Minutes" on February 22, 1976. The basic feeling brought forth through interviews was that both students and their parents indicated a strong commitment toward a college education. Students

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[34] H. C. Kazanas and L. C. Wolff, "Development of Work Habits in Vocational Education--What the Literature Indicates," Journal of Industrial Teacher Education 10, 1972, p. 49.

[35] John Hollender, "Differential Parental Influences on Vocational Interest Development in Adolescent Males," Journal of Vocational Behavior, January 1972, p. 74.

felt that to get ahead in life they must have a "sheepskin."[36] Caroline Bird was interviewed on that February 22 segment of "60 Minutes" about her book, The Case Against College. In her book, she said, "College is good for some people, but is not good for everybody."[37] She further stated, "How parents feel about college is sometimes the key to whether a student applies, goes and stays . . . ."[38]

A conclusion to be drawn from the various readings on this subject could be summed up by the following statement from Career Education and the Elementary School Teacher:

> For career education objectives to be realized, it is essential that parents become aware of how attitudes in the home affect their children's orientation to the working world. Efforts should be made to adopt, change or modify parental attitudes relating to career education.[39]

The School System

The school system itself may influence the attitudes of the students to enroll in vocational education. As previously noted, it is commonly accepted that schools place more emphasis upon the college preparatory curriculum than upon the preparation for a trade or skill. Researchers have reported that a lack of knowledge of vocational education and its opportunities are widespread. Gardner (1973) felt that many administrators and counselors seemed unresponsive to the problem at hand and the advantages of vocational education. He found that, "Many of the less favorable perceptions of school personnel toward vocational education can, perhaps be attributed to a possible lack of knowledge about vocational education."[40]

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[36] CBS, "60 Minutes," 22 February 1976, Morley Safer.

[37] Bird, The Case Against College, p. 24.

[38] Ibid., p. 13.

[39] Kenneth B. Hoyt, Nancy M. Pinson, Darryl Laramore and Garth L. Mangum, Career Education and the Elementary Teacher (Salt Lake City: Olympus Publishing Company, 1973), p. 137.

It has also been found that a lack of interest might be due to the lack of prestige. Stallworth explained that there is a " . . . stigma of relative unworthiness that is attached to a large number of vocations in the society."[41]

Although some studies show that students hold attitudes favorable toward vocational education, they do not attempt to determine if the favorable attitudes are of sufficient strength to warrant a commitment on the part of the student to contemplate enrollment in vocational offerings. In many cases, students not only took a negative perception of vocational education, but they also " . . . believe the present educational system is not fulfilling its responsibility successfully."[42] This concept is implied by Moulette (1972), who stated that, "Students have negative attitudes toward education due to the lack of relevance in the standard curriculum patterns."[43] At the present time, only one out of every ten students without plans to attend college leaves the secondary educational system with some specific occupational preparation.[44] As shown by a survey presented at the 1975 International Conference on Education, "About fifty percent of our high school students are in the so-called general track, which prepares them neither to go to college, nor to enter a job. Nearly 2,500,000 students leave . . . each year without adequate preparation for careers."[45]

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[40] Glen Martin Gardner, "The Association Between Local School Administrators' and Counselors' Attitudes Toward Vocational Education"(Oklahoma State Department of Vocational and Technical Ed., Stillwater, Oklahoma, 1973), p. 22.

[41] Stallworth, "Trades and Other Vocations, Why the Stigma?," p. 215.

[42] George W. Neill, "The Reform of Intermediate and Secondary Education in California," Phi Delta Kappan, February 1976, p. 394.

Sobol (1971) found that, "There is a widespread feeling among our young people and a growing number of adults that a broad gap exists between school and life."[46] The feeling seemed to be, Sobol said, that because of outdated curricula and outmoded instructional practices, the school had almost lost touch with the reality of the world around it.

Although national data is lacking, the results of several state studies indicated clearly that there was unfavorable feeling toward vocational education within the secondary school system. Baker (1974), in a preliminary investigation on teacher and student attitudes toward vocational education, remarked that, "The emphasis in the average high school today is upon college preparation despite the fact that less than 20 percent of the jobs in the nation's work force require college preparation."[47] Shaffer's (1976) statement that, "The Bureau of Labor Statistics projects a long-term surplus of college graduates reaching 140,000 annually by 1980,"[48] indicates the dilemma which he felt will likely result. Fernig (1973) felt that placing such emphasis upon college preparation while virtually ignoring other types of preparation implied an inferior status for students in vocational education. "The first problem for educators," said Fernig, "is to conceive and put into practice a total system in which formal education and vocational training find an equal place."[49] Recent educational concern emphasizes the importance of placing more value on the student who is training for occupational fields and the change from an inferior status for students in vocational education programs.

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[43] J. B. Moulette, "New Philosophies, Rewarded Efforts and Improved Strategies for Career Education," Journal of Career Education 1, 1972, p. 12.

[44] "Colorado State Plan for Vocational Education 1976" (The State Board for Community Colleges and Occupational Education, Denver, Colorado), p. 142.

[45] "Secondary Schools, Training and Jobs," Intellect, January 1975, p. 212.

[46] Thomas Sobol, "The Broader Meaning of Articulation," Phi Delta Kappan, September 1971, p. 25.

A description of the school environment by Rhodes (1970) included the attitudes of students as critical learning factors. He considered favorable concepts a prerequisite to the students' efforts to learn.[50] Many other studies have indicated the importance of students' opinions and knowledge about occupational education as the influencing factor to take vocational education. The dominant characteristics of the motivating factors are a positive concept or attitude toward socially useful work in a standard general secondary education.

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[47] G. E. Baker, "A Preliminary Investigation on Teacher and Student Attitudes Toward Vocational Education," Journal of Industrial Teacher Education, Summer 1974, p. 19.

[48] Richard A. Shaffer, "Down the Ladder," The Wall Street Journal, 16 January 1976, p. 1.

[49] Leo Fernig, Introduction to "Elements for a Dossier: Secondary Education, Training and Employment," Prospects, Autumn 1973, p. 326.

The importance of attitudes as part of effective training in vocational education courses was reported by Kazanas and Wolff in the Journal of Industrial Teacher Education. They stated, " . . . that to maximize training on effective work habits, positive attitudes toward work may be a necessity."[51] Greenbaum and Henrickson (1957) pointed out that attitudes affect " . . . what one does, whom one knows, and often how one thinks."[52]

Conant (1961), in speaking of the relative merits of education and desirable opportunities available, indicated:

> It is a very unfortunate fact that false prestige implying a higher social status for those who have "attended" college constitutes a threat to improvements long overdue in educating youth. That education beyond the high school is a longer education is no reason to regard it as a better education. Full-time education beyond high school is desirable

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[50] J. A. Rhodes, A System for the 70's, Vocational Education and Guidance (Columbus, Ohio: Charles E. Merrill, 1970), p. 18.

[51] Kazanas and Wolff, "Development of Work Habits in Vocational Education--What the Literature Indicates," p. 49.

[52] J. Greenbaum and H. C. Henrickson, "Attitudes Toward Work--an Education Problem," Education Digest 22, 1957, p. 37.

> only to the extent that it develops further the potentialities of the student. . . . Snobbery that equates the length of education with its value has placed in some areas, especially wealthy suburban communities, a stigma upon high school vocational education. This snobbery can well be held responsible for the misery and frustration of many suburban children whose academic talents do not qualify them for advanced academic work. Moreover, such a view runs completely counter to our frontier-derived heritages of equality of status for all forms of honest labor. There has been too much talk of the "necessity" to go to college in order to get ahead. Qualities of leadership, perseverance, honesty, and common sense are not found solely on college campuses.[53]

As pointed out previously, indications are that vocational education is faced with a lack of status or prestige because of attitudes that have developed with its history. This seeming lack of status for vocational education in the secondary school setting where college preparations are stressed may be detrimental to the formation of positive opinions or attitudes toward vocational education. "At the heart of the problem," according to Career Education: What It Is and How To Do It, "is a false societal attitude that worships a college degree as the last and surest road to occupational success."[54]

"We are faced with a choice between the work ethic . . . and the new welfare ethic . . . ,"[55] said Gimlin (1973), managing editor of the book Editorial Research Reports on the American Work Ethic. "It is estimated that over forty million of the forty-six million students now in school will not graduate from college,"[56] Flanders predicted in 1970. A college degree offered no assurance of a job. According to numerous forecasts, job prospects would remain dim in several white collar professions for years to come. These changes were brought about by such diverse factors as uncertainty in the national economy, a slippage in the rate of population growth, and a large outpouring of graduates in the past decade. Battelheim of the University of California told the House Special Subcommittee on Education in 1969 that, "In my opinion, there are today far too many students in college who have no business to be there. . . . Many would be better off in a high-level program of vocational education which is closely linked to a work program. . . ."[57]

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[53] James B. Conant, Slums and Suburbs (New York: McGraw-Hill Book Company, Inc., 1961), p. 109.

[54] Kenneth B. Hoyt, Rupert N. Evans, Edward F. Mackin and Garth L. Mangum, Career Education: What It Is and How To Do It (Salt Lake City: Olympus Publishing Company, 1972), p. 29.

[55] Hoyt Gimlin, ed., Editorial Research Reports on the American Work Ethic, Congressional Quarterly, Inc. (Washington, D.C.: n.p., 1973), p. 1.

Counselors

Another major influence on the attitudes of the student is the counselor. In recent years, there has been a rapid expansion in the efforts of the secondary school to provide students with more information pertaining to occupational education. School guidance personnel are one of the major means involved to help students appraise their vocational interests and provide a channel to enter the occupation education system. There is evidence that one of the important needs in present and future education is vocational guidance. There are many alternatives to college available, Caroline Bird pointed out in The Case Against College--apprenticeships, training programs, armed forces and many others. She also indicated that high school students who want to enter the job market upon graduation do best with vocational training.[58]

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[56] Russell Flanders, "Employment Patterns for the Seventies," Compact, August 1970, p. 7; reprinted in Editorial Research Reports on the American Work Ethic, Congressional Quarterly, Inc. (Washington, D.C.: n.p., 1973), p. 103.

[57] Bruno Battelheim, Testimony before the House Special Subcommittee on Education, March 20, 1969; quoted by Flanders, "Employment Patterns for the Seventies;" reprinted in Editorial Research Reports on the American Work Ethic, p. 104.

Although Omvig (1973) found, in discussing counselors' attitudes toward college preparatory and vocational education, that, "As the results of this study were analyzed, it became increasingly apparent that counselors were not advocating the overthrow of college preparatory education in favor of vocational education, even though they rated vocational education significantly better than college preparatory education,"[59] many counselors today seem to have a negative image of vocational education. Hoyt (1970), writing about the image gap in vocational education counseling, said, "Counselors must be aware of the reasons for this image and study ways that the image can be made positive."[60] Hoyt listed several negative perceptions toward vocational education held by high school counselors:

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[58] Bird, The Case Against College, p. 202.

[59] Clayton P. Omvig, "Counselors' Attitudes Toward College Preparatory and Vocational Education," Vocational Guidance Quarterly, December 1973, p. 144.

1. They are skeptical that it is possible for vocational educators to adequately train skilled technicians and craftsmen at the secondary level
2. They view in a negative light the claim that vocational education prepares people for gainful employment after secondary graduation
3. Many uphold the perception that vocational education has failed to offer a sufficient variety of choices to students
4. Vocational education exists as something separate and apart from the regular "academic" school

Hoyt felt that these negative beliefs probably influence students to choose academic careers rather than vocational careers. He further indicated that counselors with such perceptions responded by simply failing to talk with many of the students about opportunities in vocational education.[61]

Venn (1967), in his study, made the following observation: "The low repute of a program is harmful in many ways: good students shy away, . . . other educators show little interest."[62]

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[60] Kenneth B. Hoyt, "The Image Gap Vo-Ed Counseling--Its Causes and Correction," School Shop, February 1970, p. 41.

[61] Ibid., pp. 41-43.

In a study to investigate the attitudes of secondary school guidance counselors toward trade and industrial education, Prichard's (1968) findings indicated that, "Counselors did not have a very favorable attitude toward blue collar occupations."[63] Caroline Bird said about students going to college that, "If parents don't push, high school counselors may conceive it to be their duty to do the pushing for them."[64] In The Guide to Vocational Education in America: Trends to 1978, Hoffman stated that, "Most counselors know very little about the world of work. Students, young and adult, simply are not receiving career counseling services at any point in their school careers."[65] Gardner's research indicated that school counselors often have a " . . . positive attitude toward vocational education . . . only for the right kind of student--the low academic one."[66] Prichard felt that if students were to have good vocational guidance from counselors, the counselors should complete a course in vocational education and gain more knowledge on the principles of vocational education.[67]

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[62] Grant Venn, "Man, Education and Work" (American Council on Education, Washington, D.C., 1967), p. 34.

[63] Neal W. Prichard, "Counselors View of Trade and Industrial Education in Wisconsin" (Stout State University, Menomonie, Wisconsin, 1968), p. 35.

[64] Bird, The Case Against College, p. 14.

[65] Hoffman, The Guide to Vocational Education in America: Trends to 1978, p. 17.

[66] Gardner, "The Association Between Local School Administrators' and Counselors' Attitudes Toward Vocational Education," p. 81.

Comprehensive School Versus Area Vocational School

One of the major disputes of the general public regarding vocational education is whether vocational education should be provided in comprehensive high schools or in specialized (area) vocational high schools. Conant (1967), a strong advocate of the comprehensive high school, wrote:

> My inclination is strongly in favor of including vocational work in a comprehensive high school instead of providing it in a separate high school. . . . I believe it is important for the future of American democracy to have as close a relationship as possible in high school between the future professional man, the future craftsman, the future manager of industry, the future labor leader, the future salesman, and the future engineer. As I have often stressed in my writings, I am convinced that one of the fundamental doctrines of American society is equality of status in all forms of honest labor as well as equality of opportunity.[68]

Conant pointed out further that the cost of transportation, the breaking up of peer and community ties, and fewer opportunities for extracurricular interaction were some of the disadvantages of the specialized (area) vocational high school.

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[67] Prichard, "Counselors View of Trade and Industrial Education in Wisconsin," p. 35.

[68] J. B. Conant, The Comprehensive High School (New York: McGraw-Hill Publishing Company, 1967), pp. 62-63.

Those favoring separate specialized (area) vocational high schools argue that these institutions are able to provide more specialized training and have better equipment and facilities. Evans' (1971) opinion was that removing vocational students from the academic environment of a regular high school tended to eliminate any feelings of inferiority on their part.[69]

Data reported by Flanagan, et al. (1962) for Project Talent indicated that, "Vocational high school facilities do not differ from those of academic and comprehensive high schools in a national sample."[70]

Previous Studies Done in Colorado

Studies by Valentine, Rothenberg, and Holder done since 1970 in Colorado regarding attitudes toward vocational education were reviewed. Each concerned himself with slightly different aspects of the total area of inquiry.

Valentine, in 1970 and 1971, conducted several community surveys regarding the educational perceptions of students, parents, and businessmen toward the public schools' educational programs and students' occupational aspirations. The results of his studies generally showed that attitudes or perceptions toward vocational education were similar among the students and parents. They were also in agreement that parents and friends seemed to have a great deal of influence on a student's decision to enroll in vocational or in academic courses. A large percentage of the students surveyed indicated their parents favored their attending a college or university.[71]

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[69] Rupert N. Evans, Foundations of Vocational Education (Columbus, Ohio: Chas. E. Merrill, 1971), p. 174.

[70] J. C. Flanagan, J. T. Dailey, M. F. Shycoft, D. B. Orr, and I. Goldberg, Studies of the American High School (Project Talent Office, The University of Pittsburgh, 1962), p. 3.

Rothenberg's study was done in 1972 in one community on the eastern slope of the Colorado mountains and concerned itself with relationships between parents' attitudes and students' attitudes toward vocational education. He found: "There is no significant relationship between parents' attitudes toward vocational education and their children's attitudes toward vocational education."[72]

Holder conducted a limited study in 1972 with two school districts on the western slope of Colorado which also dealt with the relationships between attitudes toward vocational education of parents and students. He found differences in attitudes according to parents' occupation, father's income, and educational level of parents.[73]

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[71] Ivan E. Valentine, "Parents' Attitude Toward the Public School's Educational Program and Student's Occupational Aspirations" and "Student's Education Perception Inventory" (Research Reports, Colorado State University, Fort Collins, Colorado, 1970-1971).

[72] David Harvey Rothenberg, "Attitudes Toward Vocational Education" (Abstract of Ph.D. dissertation, Colorado State University, Fort Collins, Colorado, 1972), p. 3.

[73] Adolphys Doyle Holder, "Attitudes of Parents and Students Toward Vocational Education" (Abstract of Ph.D. dissertation, Colorado State University, Fort Collins, Colorado, 1972).

Summary

Omvig summarized the problem when he said:

> Recent changes in technology, unemployment in the face of unfilled jobs, college graduates filling unskilled or semiskilled jobs, occupational training programs lacking trainees, and the students' cry for relevance in education clearly indicate that a new look should be taken at both our guidance services and the alternatives our educational system provides.[74]

John W. Gardner, former Secretary of Health, Education and Welfare, made similar implications when he wrote:

> We live in a society which honors poor philosophy because philosophy is an honorable calling, and ignores good plumbing because plumbing is a humble occupation. Under such practices, we will have neither good philosophy nor good plumbing. Neither our pipes nor our theories will hold water.[75]

There are many controversies about the value of vocational education throughout our nation. Most, however, are not direct subjects for investigation in this study since the concern here is primarily with the perceptions and influences that relate to a student's decision to enroll in a vocational course in Colorado. Therefore, further research into the advisability of how or if to administer vocational education programs, and if they are administered, how to do this most effectively, will be left for future study.

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[74] Omvig, "Counselors' Attitudes Toward College Preparatory and Vocational Education," p. 140.

[75] John W. Gardner, Excellence: Can We Be Equal and Excellent, Too? (New York: Harper, 1969), p. 86.

Attitude Measurements

To be able to construct a device to measure attitudes of various groups toward vocational education, which this research purports to do, an investigation was made to see what forms were available. A survey of literature did afford this information, and a limited review is contained herein.

The theory and practice of attitude measurement gained prominence in the twentieth century, and much of this can be credited to men such as Louis L. Thurstone, Rensis Likert, and H. H. Remmers. Attitude measurement has advanced in the numbers of techniques available and its applicability to fields other than those pertaining strictly to education. Various authors and experimenters have taken basic techniques and used them to measure attitudes toward special cases, as well as designing instruments that will measure attitudes toward and by a variety of subjects.

As early as 1928, Thurstone and Chave published an article in which they discussed attitude measurement. Their technique involved the use of psychological scaling methods in measuring attitudes towards certain objects or subjects. Basically, the method consisted of selecting a series of opinions that related to a particular object or subject, ranging from the "most favorable" to "most unfavorable." The opinion statements were sorted by a panel of judges into equally spaced units along a continuum. This technique is known as the "method of equal appearing intervals."[76]

In the method of equal appearing intervals, distributions for each opinion statement are recorded showing the frequency with which it appears in each of the units of the continuum. Statistical analysis is then employed on each statement to ascertain its differentiating quality. The most differentiating statements are used to construct the final attitude scale and each statement is given a specific scale value. Those statements indicating a favorable attitude are generally given a low value, while those implying an unfavorable attitude are given high values. The respondent is asked to check every statement that expresses his attitude toward the subject in question. The respondent's score is then taken as being the mean or median of the scale values of the statements which he checked.

Likert modified the Thurstone technique into what is known as summated rating.[77] This method makes use of item analysis procedures borrowed from test construction techniques. In a manner similar to the Thurstone technique, a large number of opinion statements are selected which pertain to a particular subject. These statements are carefully edited to eliminate ambiguous and irrelevant items. The remaining items are used to form an attitude scale, with each item being given multiple response categories, such as, strongly agree, agree, undecided, disagree, strongly disagree. About one-half of the items used in the scale should be of the nature that an agree response represents a favorable attitude, while responses of disagree for the other half represents a favorable attitude. After the scale has been administered, the items are analyzed by any of several item analysis procedures. A simple procedure, perhaps the simplest, is that of taking a specified percentage of the respondents from both the top and bottom of the distribution of total scores. The final attitude scale is formulated by selecting twenty to twenty-five of the most discriminating items from the total list. Likert claimed this technique saves a great deal of time and labor in preparing the instrument by eliminating the necessity of using judges. He believed that the results obtained from use of this technique were comparable with those obtained by using the Thurstone scales.

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[76] Louis L. Thurstone and E. J. Chave, The Measurement of Attitudes (Chicago: The University of Chicago Press, 1929).

[77] Rensis Likert, "A Technique for the Measurement of Attitudes," Archives of Psychology, June 1932, pp. 1-55.

Remmers is known for his studies in the construction and use of generalized attitude scales.[78] These scales were designed so that one scale can be used to measure a variety of subjects rather than be limited to measuring specific attitudes. His technique involves the Thurstone method applied to generalized situations. He indicated that the generalized scale can be prepared in a manner which results in considerable saving of time and labor. Remmers maintained that a generalized scale may be used in measuring attitudes toward a variety of attitude objects or subjects.

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[78] H. H. Remmers, Introduction to Opinion and Attitude Measurement (New York: Harper and Brothers, 1954), pp. 9-10.

After careful investigation of the various measuring devices available, which also included extensive study of Edwards, Techniques of Attitude Scale Construction,[79] an instrument was constructed, the purpose of which was to identify and measure student, parent, and counselor perceptions and attitudes toward vocational education. Procedures for selection of this instrument are discussed further in Chapter 3.

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[79] Allen L. Edwards, Techniques of Attitude Scale Construction (New York: Appleton-Century-Crofts, Inc., 1957).

CHAPTER III

PROCEDURES

Introduction

The procedures used in obtaining data necessary for the completion of this study were as follows:

1. Construction of the Attitude Questionnaire
2. Development of Data Gathering Instruments
3. Selection of Participants
4. Collection of Data
5. Analysis of Data

Construction of the Attitude Questionnaire

After reviewing numerous questionnaires that had been used in previous studies, as well as several standardized attitude questionnaires, the decision was made to construct one that would more closely meet the needs of this study. In an attempt to reach the goal of making a questionnaire relevant to the group to which it was to be administered, questions were drawn from a group of people consisting of nine high school vocational education teachers, nine secondary academic teachers, twenty-five high school students, fourteen parents, and thirteen secondary counselors. Each was given a sheet to fill out that asked them to write two statements that would indicate a person's knowledge of vocational education, one statement that would indicate the status of vocational education, and three statements that would represent an attitude, either favorable or unfavorable, toward vocational education (see appendix A). Items were also drawn from previous studies done in this area. Dr. Ivan E. Valentine, Colorado State University, was kind enough to grant permission to use anything needed from his questionnaire,[1] and some items were used in the questionnaire finally constructed for this study (see appendix D).

The procedures used to construct, validate, and check the reliability of the attitude questionnaire are those recommended by Edwards.[2]

1. A list of sixty statements related to vocational education was made up from those previously obtained, with a response in the form of a Likert-type scale, using SA, A, U, D, and SD. Five vocational education teachers were selected as persons knowledgeable about vocational education, and they were asked to rate each question. They were told to consider each statement as being made by a person with a favorable attitude toward vocational education or an unfavorable attitude toward vocational education--if favorable it was given a 4, and if unfavorable a 0. The majority answer was then used to make up a scale for each question. Favorable

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[1] Ivan E. Valentine, "Student's Education Perception Inventory," (Research Reports, Colorado State University, Fort Collins, Colorado, 1970-1971).

[2] Allen L. Edwards, _Techniques of Attitude Scale Construction_ (New York: Appleton-Century-Crofts, Inc., 1957).

questions were rated SA = 4, A = 3, U = 2, D = 1, SD = 0,[3] while unfavorable questions were rated SA = 0, A = 1, U = 2, D = 3, SD = 4.

2. A sixty-item questionnaire was made up and administered to a total of 174 students at El Paso Community College and the University of Colorado, Colorado Springs. They were asked to select the answer that best described their feeling about the statement. The score of each test was totaled using the rating scale above. The scores were then ranked and divided into three groups. Those in the top twenty-five percent were considered to be most favorable toward vocational education, while those in the bottom twenty-five percent were the least favorable. Only these two groups were used in the following procedure. Responses to each question were tabulated for each group separately.

3. A $\underline{t}$ test was run between the high and the low groups, each having an $\underline{n} = 42$. Edwards states that " we may regard any $\underline{t}$ value equal to or greater than 1.75 as indicating that the average response of the high and low groups to a statement differs significantly, provided we have 25 or more subjects in the high group and also in the low group."[4] The results of the $\underline{t}$ test indicated a low score of .02 and a high of 8.52. Twenty-four statements were then selected from the list with a $\underline{t}$ score ranging from 2.79 to 8.52. These twenty-

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[3] SA = Strongly agree; A = Agree; U = Undecided; D = Disagree; SD = Strongly disagree.

[4] Edwards, Techniques of Attitude Scale Construction, p. 153.

four statements made up the attitude portion of the questionnaire. The statements chosen were half in favor of vocational education and half not in favor, to reduce the probability of biasing those responding.

4. To check the reliability, the questionnaire was given to a new group of students at the University of Colorado, Colorado Springs campus (n = 26), and they were asked to complete it following the same instructions as given to the previous groups. These responses were tabulated, obtaining a total score for the even-numbered statements and a total score for the odd-numbered statements. A correlation was then run for the total group between the even and odd scores. The results showed a correlation of .86, indicating the reliability to be in an acceptable range.

After completion of the questionnaire, Dr. Dwain L. Thatcher, Supervisor, Research Department, School District #11, Colorado Springs, was asked to look over the questionnaire and the method of construction, validation, and check of reliability. He suggested minor word changes in three of the statements, and stated that he felt the procedures were well chosen and correct, and that the questionnaire should do the job required.

Development of Data Gathering Instruments

The questionnaire was designed to be administered to three different groups of people--students, their parents, and the counselors who would normally advise students eligible to enter a vocational program. For analysis, the groups were further broken down into five groups--vocational students, non-vocational students, parents of vocational students, parents of non-vocational students, and counselors.

The questionnaires were presented in booklet form consisting of an "A" part and a "B" part (see appendix B). The A part was the attitude portion and consisted of the same set of statements for all involved. Procedures for selection of items in the A part have been previously described. All groups were asked to read each statement and mark the response (Strongly agree, Agree, Undecided, Disagree, Strongly disagree) that most nearly matched their own feelings. The counselors were also asked to mark a second column indicating how they felt most parents of their counselees would respond. The B part of the questionnaire was different for each of the three groups (students, parents, counselors). Statements for the B part were designed to obtain the demographic and specific information needed from each group for the study.

To aid in administering the questionnaire, the student and parent copies were put into a packet (see appendix B). The packet consisted of a large white envelope with instructions plainly printed on the outside. These instructions informed the student that inside would be found:

1. Parent or Guardian Information card
2. Student Questionnaire
3. Parent or Guardian Questionnaire (small envelope)

and the following instructions:

1. Fill out the Parent or Guardian Information Card and return to person conducting survey before you answer the Questionnaire.
2. Fill out the Questionnaire.
3. Put completed Student Questionnaire only in this envelope; seal and return to person conducting survey.
4. Take the Parent or Guardian Questionnaire home and have it completed.
5. Have Parent or Guardian place completed Questionnaire in envelope and seal.
6. Return your Parent or Guardian Questionnaire to person conducting survey tomorrow. (Parent or Guardian may prefer to mail responses)

The Parent or Guardian information card, the student questionnaire, and the parent questionnaire were all numbered the same to aid in followup of those parent questionnaires not returned. By picking up the information card first and providing envelopes for both students and parents to seal, the respondees in each group were given an opportunity to answer as they felt without wondering if someone in the local school would read their answers. The parent envelope had the return address of James Brown--Gary Clark on it so the parent's response could be mailed instead of returned to the school if it was desired. A number were returned in this manner. About a week after the student questionnaires were administered, a return trip was made to the school to pick up parent responses returned to the school. At that time, a large, pre-addressed, stamped envelope was left with the school for forwarding additional parent responses received by the school.

The counselor questionnaires were also given out with an envelope in which to return them to provide as much privacy as possible. In each school, the head counselor was contacted, the purpose of the study explained and help requested. A large, pre-addressed and stamped envelope was left with a mailing date on it for the return of the counselor questionnaires. This proved to be an effective, efficient way to receive the counselor questionnaires, and the results were very good. Of a possible 108 returns, 98 were received in this manner.

The procedure for followup of parent questionnaires was to mail a second questionnaire with a cover letter and a pre-addressed, stamped envelope to those who had not returned them to the schools, approximately a week after they had been sent home. A reminder card was also designed to be sent about two weeks after the second questionnaire for those who still had not returned them.

Selection of Participants

Areas to be included in the study were chosen so that findings could be projected throughout the entire state of Colorado. Consideration was given to include areas that would represent the major portion of the population of the state as well as diverse geographic and economic areas. School districts in the various areas were selected to include comprehensive high school programs as well as area vocational schools. An attempt was also made to include districts that would represent the students enrolled in the major programs in the state. The six districts that participated in the study were Boulder Valley School District RE-2, Colorado Springs School District 11, Fort Morgan School District RE-3, Littleton School District 6, Mesa County Valley School District 51, and Pueblo School District 60.

Boulder

Boulder is located 22 miles northwest of Denver and is the sixth largest city in Colorado with a population of 66,870. It is a college town, the University of Colorado being located there with a student population of over 22,000. It is also a scientific and research center. Major community employers include the schools and the university, the United States Department of Commerce, Laboratories, International Business Machines Corporation, Ball Brothers Research Corporation, Dow Chemical Company, and the National Center for Atmospheric Research.

The public school enrollment in the greater Boulder area includes 11,921 elementary students and 11,221 secondary students. The greater Boulder area includes the surrounding towns of Broomfield, Nederland, Lewis, Lafayette, Longmont, Niwot, Lyons, and Erie. The Boulder Valley Vocational

Technical Center is also located there, with an enrollment of 856 secondary students, 411 post-secondary students, and 386 adult students.[5]

Colorado Springs

Colorado Springs, 70 miles south of Denver, is situated on the eastern slope of the Rocky Mountains. It covers an area of some 85 square miles. The population of the metropolitan area for 1973 was 290,000 people. This represented an increase of 64.2 percent from 1960 to 1970.

Colorado Springs has an employment distribution which reflects the major influences of military activity and resort development in the area. Government employment, not including assigned military personnel, accounts for about 27 percent of the total civilian labor force. Service occupations and trade activities each account for about 22 percent of employment.

Manufacturing, which employs only 11 percent of the civilian workers, is significantly less than either the state or national averages. Manufacturing employment has been experiencing strong growth, however, through additions of new firms to the area and expansions of existing companies.

The metropolitan area is served by seven public school districts which have ten senior high schools, twenty junior high schools, and sixty-six elementary schools. Colorado Springs has four colleges, all located within the city limits. El Paso Community College serves the community as a two-year vocationally-geared institution. The Colorado College, founded in 1894, is a privately endowed, nonsectarian, coeducational institution. The University of Colorado at Colorado Springs is a state-sponsored coeducational institution offering bachelor's degrees in arts and sciences, business administration, education, and engineering; and master's degrees in business administration, mathematics, education, electrical engineering, and public administration. Nazarene Bible College is also located in Colorado Springs.[6]

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[5] Information obtained from the Boulder, Colorado, Chamber of Commerce.

Fort Morgan (Morgan County)

The Fort Morgan area, including the towns of Wiggins and Brush, is located in northeastern Colorado approximately 75 miles northeast of Denver. Fort Morgan has a population of 8,000; Wiggins, 342; and Brush, 3,377. The area is primarily agricultural, but does include a sugar mill, gasoline and natural gas plants, irrigation pipe factories, a beef packing plant, and a modular home plant.

The public schools enroll 1,796 elementary students, 850 junior high students, and 698 senior high students. Over half of the students are bussed into the schools. Morgan County Community College is also located in Fort Morgan.[7]

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[6] Information obtained from the Colorado Springs, Colorado, Chamber of Commerce.

[7] Information obtained from the Fort Morgan, Colorado, Chamber of Commerce.

Littleton--Denver

The Littleton school district was chosen to represent the Denver city area. Littleton is located in the south central portion of the metropolitan area. The Denver metropolitan area is the twenty-sixth largest metropolitan area in the United States, with an estimated population of 1,500,000.

Denver's Standard Metropolitan Statistical Area (SMSA as defined by the Census Bureau) consists of Adams, Arapahoe, Boulder, Denver, Douglas, Gilpin, and Jefferson counties. For this study, Boulder was considered as a separate area.

The Denver metropolitan area is the ninth fastest growing in the United States. Population increase between 1960 and 1970 was about thirty-two percent. It is projected that Denver will continue to grow at about the same rate through the 1970's, reaching a total population of 1,800,000 by 1980, and doubling its present population by the year 2000.

Denver is second only to Washington, D.C., in terms of the level of educational attainment of its population. The median number of school years completed by those who are 25 years-of-age or older is 12.6 in Denver and 12.7 in Washington, D.C. In the Denver metropolitan area, there are nine four-year colleges and two junior colleges.[8]

Grand Junction

Grand Junction is located in the Grand Valley of the Colorado River in western Colorado. It is the county seat of Mesa County, which is the most populous in all of western Colorado. Grand Junction is a regional trade center because of its access to major highway, rail, and airline systems.

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[8] Information obtained from the Denver, Colorado, Chamber of Commerce.

During the 1950's, Grand Junction was the center of the uranium exploration and development projects sponsored by the government. As the nation strives to meet current energy demands, the development of the vast supplies of oil shale and coal in the region will have an impact on the Grand Junction economy. At the same time, Grand Junction is expanding and diversifying its local economic base with industrial and commercial developments.

The population of this community has been growing steadily during the past decade, and it is now the largest city in western Colorado, with an estimated population of 27,000 in 1974. Mesa County had nearly 60,000 estimated population in 1974.

Grand Junction is served by Mesa County School District #51. There are nineteen elementary schools, five junior high schools, two junior-senior high schools, and three senior high schools. Two vocational schools and three parochial elementary schools are also available. Grand Junction is the home of Mesa College, which provides extensive vocational, adult education, and academic courses to over 2,500 students. The Intermountain Bible College and Western Colorado University are also located in Grand Junction.

In 1974, there were 26,560 Mesa County residents in the total labor force. Of this number, sixty percent were from

Grand Junction, with the remaining labor force drawn from a thirty-mile radius which includes Orchard, Mesa, Fruitvale and several surrounding rural communities. The largest employers are the retail and wholesale trades employing 5,400, followed by the government (4,250) and the service industries (3,650). Agriculture and manufacturing are also strong in the community.[9]

Pueblo

Pueblo, located approximately 25 miles east of the front range in southern Colorado, has a city population of 107,000 people, and a county population of 126,000 people. The rate of growth in this area over the past fifteen years has been about seventeen percent.

The non-agricultural work force numbers about 42,000, while agriculture accounts for nearly 1,000 workers. The CF&I Steel Corporation is the largest employer, employing over 6,500 people. The other large employer is the Pueblo Army Depot with approximately 2,000 employees. There are several other industrial firms employing from two hundred to five hundred people each.

Educational facilities include thirty-eight elementary schools, twelve middle schools or junior highs, and six high schools, with a total enrollment of 30,167 students. Southern Colorado University is located within Pueblo, offering both vocational courses and the usual academic offerings.[10]

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[9] Information obtained from the Grand Junction, Colorado, Chamber of Commerce.

[10] Information obtained from the Pueblo, Colorado, Chamber of Commerce.

Summary

Reference to map 1 will show that with the exception of the Fort Morgan/Brush area, all surveys were given in the population centers throughout the state. The Denver metropolitan area, which includes both Littleton and Boulder, had an estimated population of 1,511,722 in 1975; the Colorado Springs metropolitan population in 1973 was estimated to be 290,000 people; and Pueblo has a county population of 126,000 persons. Mesa County, of which Grand Junction is the center, had a 1974 estimate of 60,000 people. The remaining area, Morgan County, had a 1973 population of 21,040. The areas represented in the survey contain a total population of 2,008,760, while the state's estimated population for 1975 was 2,678,647. The areas included in the survey thus represent approximately seventy-five percent of the population of Colorado.

Collection of Data

A letter explaining the purpose of the study was sent to Dr. Calvin Frazier, Colorado Commissioner of Education, asking for his support of the study.[11] He later sent a letter that could be duplicated and used as needed expressing his interest in the project.[12] A letter was then prepared

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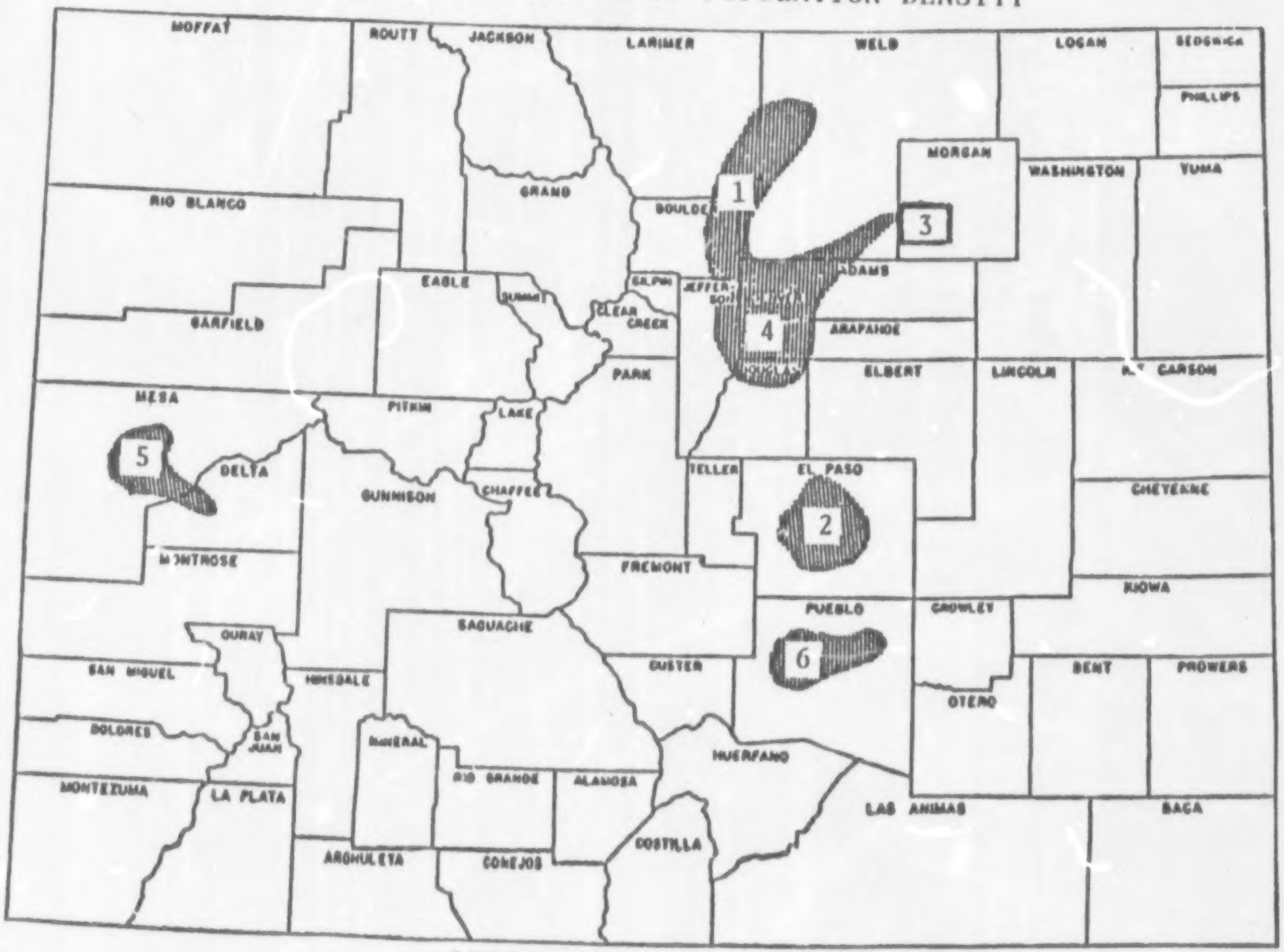
[11] James E. Brown and Gary M. Clark, personal letter dated June 13, 1975, to Calvin M. Frazier, Commissioner of Education, Colorado Department of Education (see appendix C).

[12] Calvin M. Frazier, Commissioner of Education, Colorado Department of Education, letter to Brown and Clark dated October 7, 1975 (see appendix C).

FIGURE 1

MAP NUMBER ONE
COLORADO CENTERS OF POPULATION DENSITY



SCHOOL DISRICTS SURVEYED

1 Boulder Valley School District 2
2 Colorado Springs School District 11
3 Fort Morgan School District 3
4 Littleton School District 6
5 Mesa County Valley School District 51
6 Pueblo School District 60

to send to the superintendents of each district, along with a copy of Dr. Frazier's letter, requesting the district's participation.[13] Upon return of a letter agreeing to take part in the project,[14] the authors called the people indicated by the superintendents and arrangements were made to administer the questionnaires. Administration of the vocational portion was done by Clark and the non-vocational portion was done by Brown. All questionnaires were administered and collected as soon as each group was completed, assuring one hundred percent return of the student questionnaires.

Each district was asked to provide approximately 125 vocational and 125 non-vocational students, if possible, to be surveyed. Vocational students surveyed were from both comprehensive high schools and area vocational schools, while the non-vocational students were from schools which the vocational students would have attended had they not taken a vocational program. All non-vocational students were selected by the individual districts and included students from English, foreign language, mathematics, science, and social science classes.

The number of 125 was picked, as this would assure approximately one hundred students in each section. A total of 682 vocational students and 601 non-vocational students completed the questionnaire. Vocational parents returned eighty percent of the questionnaires, and non-vocational parents returned eighty-one percent. Of the counselors surveyed, 98 of the possible 108 questionnaires were returned, for a total of ninety-one percent. Table 1 shows the numbers and percentages of returns submitted by parents and counselors from each district surveyed. As noted previously, student return was one hundred percent.

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[13] Copies of letters to the school superintendents are included in appendix E.

[14] Confirmation letters from the school districts are included in appendix E.

The subjects taught under the Trades and Industry and Technical programs as reported by the school districts to the Colorado State Board for Community Colleges and Occupational Education in the fall of 1975 included fifty-nine different subject classifications with a total of 11,552 students enrolled. The classes are provided in several different ways throughout the state. Some districts have classes in the high school itself (comprehensive high schools). Some are in an area vocational school run by the school district. Others contract with area vocational schools or private schools outside of the district. In some districts, a combination of the different methods is used.

Appendix G shows the subject classifications presently being taught and the number enrolled in each. Also shown are the numbers of students enrolled in the various programs in each of the surveyed districts. Twenty-one different programs are represented in these areas, with a total of 2,200 students of the 11,552 enrolled in vocational programs in the state, or approximately twenty percent of those

TABLE 1

NUMBERS AND PERCENTAGES OF RETURNS OF QUESTIONNAIRES

Cities Surveyed	Number of Vocational Student Questionnaires	Number of Vocational Parent Questionnaires Returned	% of Vocational Parent Questionnaires Returned	Number of Non-Vocational Student Questionnaires	Number of Non-Vocational Parent Questionnaires Returned	% of Non-Vocational Parent Questionnaires Returned	Number of Counselors Given Questionnaires	Number of Counselor Questionnaires Returned	% of Counselor Questionnaires Returned
Boulder	116	82	71	100	82	82	19	18	95
Colorado Springs	96	93	97	94	86	91	30	27	90
Fort Morgan	103	65	63	106	76	72	8	8	100
Grand Junction	140	114	81	99	80	81	9	9	100
Littleton	92	84	91	93	80	86	20	20	100
Pueblo	135	105	78	109	84	77	22	16	73
Total	682	543	80%	601	488	81%	108	98	91%

enrolled in state vocational programs. The twenty-one programs represented account for 10,166 of the 11,552, or eighty-eight percent of the students enrolled across the state.

Analysis of Data

The questionnaires were individually checked. When multiple answers were encountered, they were recoded. If it was obvious that one answer was appropriate, it was marked; otherwise, the question was recoded to missing data. For those questions that required an open end response, the responses were categorized and the questionnaires marked.

The questionnaires were then taken to a commercial data processing company where the data was punched on computer cards. The data processing company also checked and verified the cards. The computer used was at the University of Colorado with the SPSS[15] package to analyze the data.

The Pearson Product-Moment Coefficient of Correlation was computed for four of the hypotheses. The null hypotheses were rejected if the correlation was significant at the .01 or .05 level.

Where analysis of variance and subsequent F test were used to test the significance of differences among various groups used in this study, the .01 confidence levels of significance were specifically identified.

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[15] Norman H. Nie, C. Hadlai Hull, Jean G. Jenkins, Karin Steinbrenner, and Dale H. Bent, Statistical Package for the Social Sciences (New York: McGraw-Hill Book Company, 1970).

When the means of two groups were to be compared, a t test was used and the significance level of .01 used to test significance.

The remaining hypotheses were tested using Chi-square, and the null hypotheses were rejected or accepted at the .01 level.

Percentages were figured for the responses of the items pertaining to the perceptions of vocational education. These percentages should be useful to those interested in affecting the perceptions held by the various groups.

CHAPTER IV

FINDINGS

Introduction

The purpose of this chapter is to present the statistical analyses of the hypotheses tested and an interpretation of the data gathered for this study. The results will be presented by a listing of the hypotheses, analyses of the hypotheses, and data related to each hypotheses of the respondents' perceptions pertaining to vocational education.

Listing of the Hypotheses

1. There is no significant difference in attitude toward vocational education between those students taking vocational education and those who do not.
2. There is no significant relationship between the student's decision to enroll in a vocational education course and his/her prior knowledge of vocational education.
3. There is no significant relationship between a student's career goals and his/her decision to enroll in a vocational education course.
4. There is no significant relationship between the income level of the family and the student's attitude toward vocational education.

5. There is no significant relationship between the student's ethnic background and his/her attitude toward vocational education.
6. There is no significant difference in the influence of parents, counselors, and peers on the attitude toward vocational education of the vocational student and non-vocational student.
7. There is no significant relationship between the parents' attitude toward vocational education and the student's attitude toward vocational education.
8. There is no significant relationship between the parents' knowledge of vocational education and their attitude toward vocational education.
9. There is no significant relationship between the educational level of the parent and his/her attitude toward vocational education.
10. There is no significant relationship between a counselor's knowledge of vocational education and his/her attitude toward vocational education.
11. There is no significant relationship between the counselors' work experience outside the academic world and the ratio of counselees enrolled in vocational education.

12. There is no significant difference in the ratio of students enrolled in vocational education courses by those counselors with a favorable attitude toward vocational education and those with an unfavorable attitude toward vocational education.
13. There is no significant difference in the parents' attitude toward vocational education and the counselors' perception of the parents' attitude toward vocational education.
14. There is no significant relationship between a student's grades and the counselor's attitude toward enrolling the student in a vocational education course.
15. There is no significant difference in the attitudes of students, parents, or counselors toward vocational education among the metropolitan areas of Colorado.

Analyses of the Hypotheses

HYPOTHESIS 1. THERE IS NO SIGNIFICANT DIFFERENCE IN ATTITUDE TOWARD VOCATIONAL EDUCATION BETWEEN THOSE STUDENTS TAKING VOCATIONAL EDUCATION AND THOSE WHO DO NOT.

As can be seen from the information presented in table 2, a comparison of the attitude scores for vocational and non-vocational students indicates a significant difference in attitude toward vocational education, with the vocational students showing a more favorable attitude than the non-vocational students.

Therefore, the null hypothesis is rejected.

TABLE 2

COMPARISON OF MEAN ATTITUDE SCORES TOWARD VOCATIONAL EDUCATION BY STUDENTS ENROLLED WITH STUDENTS NOT ENROLLED IN A VOCATIONAL COURSE

Group	Number	Standard Deviation	Mean Attitude Score	t
Vocational students	682	.98	2.77	5.01**
Non-vocational students	599	.64	2.54	

**Significant at the .01 level.

HYPOTHESIS 2. THERE IS NO SIGNIFICANT RELATIONSHIP BETWEEN THE STUDENT'S DECISION TO ENROLL IN A VOCATIONAL EDUCATION COURSE AND HIS/HER PRIOR KNOWLEDGE OF VOCATIONAL EDUCATION.

To determine the knowledge of vocational education by non-vocational students and vocational students prior to enrolling, questions or statements were presented as shown in tables 3 through 9. Vocational students were asked to respond as they would have before enrolling.

A comparison of the responses of vocational students and non-vocational students relating to their knowledge of vocational education illustrates a significant difference

TABLE 3

FREQUENCIES OF STUDENT RESPONSES TO THE STATEMENT, "MY COUNSELOR SHOWED ME WHICH VOCATIONAL EDUCATION COURSES ARE AVAILABLE."

Group	Quite a Bit	Some	Very Little	None	Total
Vocational students	137	242	106	189	674
Non-vocational students	18	84	82	415	599
Total	155	326	188	604	1,273

$X^2 = 252$; df = 3; significant at the .01 level.

TABLE 4

FREQUENCIES OF STUDENT RESPONSES TO THE QUESTION, "DID YOU TAKE ANY INDUSTRIAL ARTS COURSES IN JUNIOR HIGH SCHOOL?"

Group	Yes More than 3	Yes 3	Yes 2	Yes 1	No	Total
Vocational students	69	97	172	192	137	667
Non-vocational students	22	34	113	151	281	601
Total	91	131	285	343	418	1,268

$X^2 = 118$; df = 4; significant at the .01 level.

TABLE 5

FREQUENCIES OF STUDENT RESPONSES TO THE QUESTION, "HOW MANY OF YOUR FRIENDS TAKE VOCATIONAL EDUCATION?"

Group	Many (more than 8)	Few (4 - 8)	Some (1 - 3)	None	Total
Vocational students	357	164	119	28	668
Non-vocational students	90	117	236	156	599
Total	447	281	355	184	1,267

X^2 = 292; df = 3; significant at the .01 level.

TABLE 6

FREQUENCIES OF STUDENT RESPONSES TO THE QUESTION, "HOW OFTEN IN THE PAST YEAR HAVE YOU HAD THE OPPORTUNITY TO VISIT A LOCAL INDUSTRY (NOT WHERE YOU WORK)?"

	Whenever the Opportunity	Fairly Often	Occasionally	Once or Twice	None	Total
Vocational students	29	41	78	208	313	669
Non-vocational students	10	20	71	170	330	601
Total	39	61	149	378	643	1,270

X^2 = 17.5; df = 4; significant at the .01 level.

TABLE 7

FREQUENCIES OF STUDENT RESPONSES TO THE QUESTION, "HAVE YOU EVER BEEN IN A VOCATIONAL EDUCATION CLASSROOM?"

Group	Whenever the Opportunity	Fairly Often	Occasionally	Once or Twice	Never	Total
Vocational students	176	264	76	62	60	638
Non-vocational students	23	61	63	138	316	601
Total	199	325	139	200	376	1,239

$X^2 = 448$; df = 4; significant at the .01 level.

TABLE 8

FREQUENCIES OF STUDENT RESPONSES TO THE QUESTION, "HAVE YOU EVER ATTENDED AN ORIENTATION PROGRAM THAT EXPLAINED WHAT VOCATIONAL EDUCATION PROGRAMS ARE AND WHAT THEY OFFER?"

Group	Yes	No	Total
Vocational students	359	308	667
Non-vocational students	134	466	600
Total	493	774	1,267

$X^2 = 130$; df = 1; significant at the .01 level.

TABLE 9

FREQUENCIES OF STUDENT RESPONSES TO THE QUESTION, "HOW MUCH DO YOU FEEL YOU KNOW ABOUT WHAT HAPPENS IN A VOCATIONAL EDUCATION COURSE?"

Group	Very good knowledge	Good knowledge	Have fair amount of knowledge	A vague idea	Nothing	Total
Vocational students	153	211	215	64	24	667
Non-vocational students	8	37	116	289	150	600
Total	161	248	331	353	174	1,267

X^2 = 514; df = 4; significant at the .01 level.

in each case, with the vocational students having the greater knowledge and the non-vocational students having the lesser knowledge. This implies a relationship between a student's knowledge of vocational education and his/her decision whether to enroll.

The null hypothesis is therefore rejected.

HYPOTHESIS 3. THERE IS NO SIGNIFICANT RELATIONSHIP BETWEEN A STUDENT'S CAREER GOALS AND HIS/HER DECISION TO ENROLL IN A VOCATIONAL EDUCATION COURSE.

Students were asked, "What kind of work do you expect to be doing ten years from now?" The responses were then placed in one of five categories:

1. A job or profession that requires a degree
2. A job that requires education beyond high school, not of a vocational nature
3. A job requiring training of a vocational nature
4. An unskilled job that requires no formal training
5. Uncertain about the future

An analysis of the responses to the question, as illustrated in table 10, shows that there is a significant

TABLE 10

A COMPARISON OF FREQUENCIES OF STUDENT CAREER GOALS BETWEEN VOCATIONAL STUDENTS AND NON-VOCATIONAL STUDENTS

Career Goals	Vocational Students Number	Non-vocational Students Number	Total
Requires a degree	4	189	193
Further education (not vocationally related)	14	135	149
Requires vocational training	401	51	452
Unskilled job	1	70	71
Uncertain	129	114	243
Total	549	559	1,108

X^2 = 615; df = 4; significant at the .01 level.

relationship between vocational students and their career goals, as well as between non-vocational students and their career goals.

Therefore, the null hypothesis is rejected.

HYPOTHESIS 4. THERE IS NO SIGNIFICANT RELATIONSHIP BETWEEN THE INCOME LEVEL OF THE FAMILY AND THE STUDENT'S ATTITUDE TOWARD VOCATIONAL EDUCATION.

As can be seen from the data displayed in table 11, a correlation of student mean attitude scores with family income level shows the correlation to be insignificant.

Therefore, the null hypothesis is accepted.

TABLE 11

RELATIONSHIP OF STUDENT MEAN ATTITUDE SCORE TO FAMILY INCOME LEVEL

Number	Mean Attitude Score	Standard Deviation	Mean Income Level	Standard Deviation	Coefficient of Correlation	Significance
1,212	2.66	.3918	3.73	3.45	-.0151	NS

HYPOTHESIS 5. THERE IS NO SIGNIFICANT RELATIONSHIP BETWEEN THE STUDENT'S ETHNIC BACKGROUND AND HIS/HER ATTITUDE TOWARD VOCATIONAL EDUCATION.

Reference to the data presented in table 12 will show that an analysis of variance of attitude scores of the

TABLE 12

ANALYSIS OF VARIANCE OF ATTITUDE SCORES OF STUDENT ETHNIC GROUPS

Source of Variance	df	Sum of Squares	Mean Square	F
Between groups	5	1.292	.2584	.136*
Within groups	1,223	187.852	.1536	
Total	1,228	189.144		

*Not significant.

various student ethnic groups indicates an F ratio of .136. This is not significant.

Therefore, the null hypothesis is accepted.

HYPOTHESIS 6. THERE IS NO SIGNIFICANT DIFFERENCE IN THE INFLUENCE OF PARENTS, COUNSELORS, AND PEERS ON THE ATTITUDE TOWARD VOCATIONAL EDUCATION OF THE VOCATIONAL STUDENT AND NON-VOCATIONAL STUDENT.

The information presented in table 13 displays a comparison between vocational students and non-vocational students concerning the influence of counselors, peers, and parents on their decision whether to take a vocational education course. The information indicates a significant difference between the groups concerning who has the most influence.

The null hypothesis is therefore rejected.

TABLE 13

A COMPARISON OF FREQUENCIES OF STUDENTS REPORTING AS TO WHO HAS THE MOST INFLUENCE UPON VOCATIONAL AND NON-VOCATIONAL STUDENTS CONCERNING VOCATIONAL EDUCATION COURSES--COUNSELORS, PEERS OR PARENTS

	Counselors	Peers	Parents	Total
Vocational students	71	135	80	286
Non-vocational students	48	84	96	228
Total	119	219	176	514

$X^2 = 11.4$; df = 2; significant at the .01 level.

HYPOTHESIS 7. THERE IS NO SIGNIFICANT RELATIONSHIP BETWEEN THE PARENTS' ATTITUDE TOWARD VOCATIONAL EDUCATION AND THE STUDENT'S ATTITUDE TOWARD VOCATIONAL EDUCATION.

A comparison of mean attitude scores of vocational students and parents of vocational students, as shown in table 14, reveals the parents to have a higher mean; therefore, a more favorable attitude toward vocational education than their sons and daughters.

A similar comparison between non-vocational students and parents of non-vocational students, also shown in table 14, displays a similar result, in that the parents again have a higher mean, and therefore, a more favorable attitude than their sons and daughters.

As the comparison for both groups is significant, the null hypothesis is rejected.

TABLE 14

COMPARISON OF MEAN ATTITUDE SCORES TOWARD VOCATIONAL EDUCATION BY VOCATIONAL STUDENTS WITH PARENTS OF VOCATIONAL STUDENTS AND NON-VOCATIONAL STUDENTS WITH PARENTS OF NON-VOCATIONAL STUDENTS

Group	Number	Standard Deviation	Mean Attitude Score	t
Vocational				
Students	682	.99	2.77	3.81**
Parents	541	.85	2.97	
Non-vocational				
Students	599	.64	2.54	4.49**
Parents	488	.92	2.76	

**Significant at the .01 level.

HYPOTHESIS 8. THERE IS NO SIGNIFICANT RELATIONSHIP BETWEEN THE PARENTS' KNOWLEDGE OF VOCATIONAL EDUCATION AND THEIR ATTITUDE TOWARD VOCATIONAL EDUCATION.

To determine the parents' knowledge concerning vocational education, five statements or questions were presented to each parent. Each question is presented in table 41 in appendix I, showing number and percentage of response. The mean score of all of the questions was then correlated with the parents' mean attitude score, as shown in table 15. A correlation of .098 was obtained at the .01 level of significance.

Therefore, although the correlation is low, it is significant, and the null hypothesis is rejected.

TABLE 15

COMPARISON OF PARENTS' MEAN ATTITUDE SCORE WITH PARENTS' MEAN KNOWLEDGE SCORE

Number	Mean Attitude Score	Standard Deviation	Mean Knowledge Score	Standard Deviation	Coefficient of Correlation	Significance
970	2.87	.401	1.93	.50	.098	.01

HYPOTHESIS 9. THERE IS NO SIGNIFICANT RELATIONSHIP BETWEEN THE EDUCATIONAL LEVEL OF THE PARENT AND HIS/HER ATTITUDE TOWARD VOCATIONAL EDUCATION.

A correlation of parents' mean attitude score was done with the fathers' education level, the mothers' education level, and an average of both fathers and mothers. The correlation with the fathers' education level was -.058 at the .05 level of significance. The correlation of the mothers' education level was not significant. The correlation with the average of both fathers and mothers was -.059, significant at the .05 level. These results are tabulated in table 16.

Correlation was slight but significant for both the fathers' education level, and the fathers' and mothers' combined average education level. Therefore, the null hypothesis is rejected.

TABLE 16

RELATIONSHIP OF PARENTS' MEAN ATTITUDE SCORE TO THEIR EDUCATION LEVEL

Group	Number	Mean Attitude Score	Standard Deviation	Mean Education Level	Standard Deviation	Coefficient of Correlation	Significance
Fathers	895	2.87	.401	2.77	2.19	-.058	.05
Mothers	932	2.87	.401	2.12	1.78	-.025	NS
Average	865	2.87	.401	2.46	1.75	-.059	.05

HYPOTHESIS 10. THERE IS NO SIGNIFICANT RELATIONSHIP BETWEEN A COUNSELOR'S KNOWLEDGE OF VOCATIONAL EDUCATION AND HIS/HER ATTITUDE TOWARD VOCATIONAL EDUCATION.

Counselors were asked to respond to three questions or statements that would indicate knowledge of vocational education (see table 42, appendix I).

A correlation between the mean score of the questions and the counselors' mean attitude score, as displayed in table 17, shows very little, if any, relationship between attitude toward vocational education and knowledge of vocational education.

The null hypothesis is therefore accepted.

HYPOTHESIS 11. THERE IS NO SIGNIFICANT RELATIONSHIP BETWEEN THE COUNSELORS' WORK EXPERIENCE OUTSIDE THE ACADEMIC

TABLE 17

COMPARISON OF COUNSELORS' MEAN ATTITUDE SCORE WITH COUNSELORS' MEAN KNOWLEDGE SCORE

Number	Mean Attitude Score	Standard Deviation	Mean Knowledge Score	Standard Deviation	Coefficient of Correlation	Significance
95	3.05	.34	1.54	.77	.1661	NS

WORLD AND THE RATIO OF COUNSELEES ENROLLED IN VOCATIONAL EDUCATION.

The responses of counselors indicating their work experience was compared with the ratio of students they reported enrolling in vocational education courses.

As can be seen in table 18, there was no significance; therefore, the null hypothesis is accepted.

HYPOTHESIS 12. THERE IS NO SIGNIFICANT DIFFERENCE IN THE RATIO OF STUDENTS ENROLLED IN VOCATIONAL EDUCATION COURSES BY THOSE COUNSELORS WITH A FAVORABLE ATTITUDE TOWARD VOCATIONAL EDUCATION AND THOSE WITH AN UNFAVORABLE ATTITUDE TOWARD VOCATIONAL EDUCATION.

One can note from the data in table 19 that an analysis of variance of counselors' attitude scores with the ratio of students enrolled in a vocational program does not show any significant difference.

Therefore, the null hypothesis is accepted.

TABLE 18

A COMPARISON OF COUNSELORS' WORK EXPERIENCE OTHER THAN IN EDUCATION WITH THE NUMBER OF COUNSELEES ENROLLED IN VOCATIONAL EDUCATION

Number of Counselees Enrolled	Years of Work Experience: 0 years	less than 1 year	1 to 2 years	3 to 5 years	more than 5 years	Total
0 - 9	2	2	12	12	10	38
10 - 19	4	0	10	9	8	31
20 - 29	0	0	4	2	3	9
30 - 39	0	0	2	3	2	7
40 - 49	0	0	0	1	3	4
50 - 59	0	0	1	2	1	4
60 - 69	0	0	0	0	0	0
70 - 79	0	0	0	1	1	2
80 - 89	0	0	0	0	1	1
90 - 100	0	0	0	0	1	1
Total	6	2	29	30	30	97

$X^2 = 133.4$; df = 152; not significant at the .05 level. (X^2 figured for individual cases, not grouped data as shown in table.)

TABLE 19

ANALYSIS OF VARIANCE OF COUNSELORS' ATTITUDE SCORES WITH THE RATIO OF STUDENTS ENROLLED IN A VOCATIONAL PROGRAM

Source of Variance	df	Sum of Squares	Mean Square	F
Among groups	4	.6242	.1560	1.368*
Within groups	92	10.4965	.1141	
Total	96	11.1207		

*Not significant

HYPOTHESIS 13. THERE IS NO SIGNIFICANT DIFFERENCE IN THE PARENTS' ATTITUDE TOWARD VOCATIONAL EDUCATION AND THE COUNSELORS' PERCEPTION OF THE PARENTS' ATTITUDE TOWARD VOCATIONAL EDUCATION.

From the information illustrated in table 20, it can be seen that a comparison of parents' attitude toward vocational education and the counselors' perception of the parents' attitude toward vocational education reveals a significant difference between their perception and the parents' attitude, for both the vocational and non-vocational groups. The counselors perceived the parents as having a more negative attitude than they actually held.

The null hypothesis is therefore rejected.

TABLE 20

COMPARISON OF MEAN ATTITUDE SCORES TOWARD VOCATIONAL EDUCATION OF PARENTS OF VOCATIONAL STUDENTS AND PARENTS OF NON-VOCATIONAL STUDENTS, AND COUNSELORS' VIEW OF PARENTS' ATTITUDE TOWARD VOCATIONAL EDUCATION

Group	Number	Deviation	Mean Attitude Score	t
Vocational parents	541	.85	2.97	7.52**
Counselors' view of parent attitude	98	.98	2.17	
Non-vocational parents	488	.92	2.76	5.45**
Counselors' view of parent attitude	98	.98	2.17	

**Significant at the .01 level.

HYPOTHESIS 14. THERE IS NO SIGNIFICANT RELATIONSHIP BETWEEN A STUDENT'S GRADES AND THE COUNSELOR'S ATTITUDE TOWARD ENROLLING THE STUDENT IN A VOCATIONAL EDUCATION COURSE.

As can be seen by the figures in tables 21 and 22, an analysis of variance was done of student grade average with two statements concerning counselors enrolling the student in a vocational class. When grade average was compared with responses to the statement, "My counselor recommended that I take a vocational education class," an F ratio of 56.49 was recorded, which is significant. Comparing grade average with responses to the statement, "My counselor showed me which vocational education courses are available," an F ratio of 24.87 was determined, which is also significant.

Both statements being significant, the null hypothesis is rejected.

TABLE 21

ANALYSIS OF VARIANCE OF STUDENT GRADES WITH COUNSELORS' RECOMMENDATION TO TAKE A VOCATIONAL EDUCATION CLASS

Source of Variance	df	Sum of Squares	Mean Square	F
Between groups	1	100.86	100.86	56.49**
Within groups	1,255	2,240.95	1.79	
Total	1,256	2,341.81		

**Significant at the .01 level.

TABLE 22

ANALYSIS OF VARIANCE OF STUDENT GRADES WITH COUNSELORS' SHOWING STUDENT WHICH VOCATIONAL EDUCATION COURSES ARE AVAILABLE

Source of Variance	df	Sum of Squares	Mean Square	F
Between groups	3	131.88	43.96	24.87**
Within groups	1,268	2,241.31	1.77	
Total	1,271	2,373.19		

**Significant at the .01 level.

HYPOTHESIS 15. THERE IS NO SIGNIFICANT DIFFERENCE IN THE ATTITUDES OF STUDENTS, PARENTS, OR COUNSELORS TOWARD VOCATIONAL EDUCATION AMONG THE METROPOLITAN AREAS OF COLORADO.

The results of analyses of variance which were completed for each of the groups (students, parents, and counselors) with each of the six areas surveyed are shown in table 23.

The F ratio for all groups is insignificant; therefore, the null hypothesis is accepted.

TABLE 23

ANALYSES OF VARIANCE OF ATTITUDE SCORES OF STUDENTS, PARENTS, AND COUNSELORS IN SIX METROPOLITAN AREAS OF COLORADO

Source of Variance	df	Sum of Squares	Mean Square	F
Students				
Between groups	5	1.89	.38	1.38*
Within groups	1,277	350.01	.27	
Total	1,282	351.90		
Parents				
Between groups	5	1.43	.29	.97*
Within groups	1,024	302.16	.30	
Total	1,029	303.59		
Counselors				
Between groups	5	2.49	.50	2.20*
Within groups	92	20.78	.23	
Total	97	23.27		

*Not significant.

The reader is invited to review the summary of the null hypotheses located in appendix H. This review indicates whether the hypotheses were accepted or rejected, the level of significance, and the statistical method used.

Respondents' Perceptions and Knowledge

Information in this section is related to the hypotheses presented in the previous section. The responses are shown both by number responding and by percentage responding to each choice. Missing responses are not always included.

Vocational Education and the Economy

The data in this section deals with statements concerning vocational education and the economy, and tables 43 through 46 (appendix J) will be referred to in the comments that follow.

An analysis of table 43 indicates the majority of those surveyed, over 50 percent of those responding, agreed with the statement that sound vocational education is the foundation of a healthy economy. Parents were the most in agreement, while counselors agreed with the statement the least of any group. A rather large number of students (39.4 percent of the vocational students and 52.2 percent of the non-vocational students) were unsure of how they felt about the statement. Few in any group disagreed, with the highest rate of disagreement coming from the counselors.

The data in table 44 shows a positive attitude by all groups toward the idea that vocational education will help solve unemployment problems. Parents and counselors were undecided approximately one-fourth of the time, while students were the largest group being unsure about the statement. Disagreement with the statement ranged from less than 10 percent for students and vocational parents, to a high of 16.3 percent for counselors.

The information in table 45 shows a surprisingly large percentage of those responding agreeing with the statement that vocational education is becoming increasingly valuable in the present job market. All groups were in the 90 percent range except the non-vocational students, who indicated 75 percent agreement. Twenty-one percent of the non-vocational students were undecided, while others were undecided 5.5 percent or less of the time. Less than 4 percent of any group disagreed with the statement.

A difference of opinion will be found in table 46. Less than one-fourth of the counselors were uncertain that students who take vocational education would have a better chance to find employment than students who go to college. Nearly half of all others were unsure about this. Counselors were about evenly split between agreeing with the statement and disagreeing with it. A large number of vocational students and vocational parents believed that there was a better chance for employment with vocational education than with college, but the larger number of non-vocational parents and, particularly, non-vocational students did not agree that vocational education provided a better chance to find employment than college.

In summary, a large percentage of those questioned felt that vocational education was necessary for a strong economy, and an overwhelming majority felt that it was becoming increasingly valuable in the present job market.

Over half felt that vocational education would help solve problems caused by unemployment. There was diverse reaction to whether a student enrolled in vocational education would stand a better chance to find employment than a student who went to college. Those involved in vocational education (vocational students and vocational parents) tended to agree that the vocational education student had a better chance for employment; while those not involved in vocational education (non-vocational students and non-vocational parents) leaned in the other direction. Counselors were split on this last issue, with a few more agreeing than disagreeing with the statement.

The information presented in this section is related to hypothesis 3, which is concerned with a student's career goals and a decision whether to enroll in a vocational education course.

Perceptions of Vocational Education

A number of statements were included in the questionnaire to ascertain attitudes toward vocational education of the different groups surveyed for this study (see tables 47 through 57, appendix K).

Nearly 90 percent of the parents either agreed or strongly agreed with the idea that vocational education is better for some students than college, as can be seen by the results in table 47. Students were somewhat lower in the number that agreed or strongly agreed than their parents and counselors, with 71.5 percent of the vocational students and 64.3 percent of the non-vocational students in this category. Overall response was general agreement with the statement.

As indicated by the figures in table 48, most of those responding felt that working with one's hands was as worthwhile as working with one's mind. Students felt this way about three-fourths of the time, and adults ranged from about 90 percent and above.

Analysis of the data in table 49 shows that the majority of students, parents, and counselors felt vocational education can provide a prestigious career. The counselors indicated the strongest feeling about this, with over 80 percent responding in favor. The non-vocational students were the least impressed. Over 50 percent of each group, however, felt that vocational education careers were prestigious.

The data indicated by the responses in table 50 clearly indicates that the respondents felt vocational education is of value to the school system and not just an easy way to get through school. Over 90 percent of four groups (vocational and non-vocational parents, counselors, and vocational students) agreed that vocational education did have a real benefit. Eighty-five percent of the non-vocational students also felt this way.

One can note from the data in table 51 that vocational education careers are felt to be as challenging and interesting as college careers. Over 80 percent of the parents and counselors disagreed with the statement that vocational careers aren't as challenging or interesting. Only 63 percent of the non-vocational students agreed that they are as interesting and challenging as college careers, 22 percent were undecided, and 14 percent felt college careers more challenging and interesting.

As can be seen by the figures in table 52, about one-third of all the vocational and non-vocational students were uncertain that academic programs are more valuable than vocational programs. A substantially large number of the students agreed concerning the relative importance of the two programs. The other groups indicated that there was little difference in the value of the two programs.

Although some in all groups were uncertain as to whether vocational education limited a student's exposure to other occupational choices, a large percentage of all groups, as expressed by the data in table 53, disagreed with the statement that vocational education would limit a student's exposure to other forms of career education.

Using taxpayers' money for vocational education evidently meets with the approval of the respondents. Seventy-four percent of the vocational parents, 57 percent of the non-vocational parents, and 71 percent of the counselors did not feel vocational education cost too much money. Non-vocational students were quite uncertain on this point, with 64 percent responding in this manner. There was minimal objection to spending money for vocational education by all groups. These responses are listed in table 54.

An overwhelming consensus seems to be that public schools have the responsibility for providing vocational education, with 98 percent of the counselors and over 85 percent of the parents agreeing with this premise. A smaller percentage of the students agreed, but then some of them were uncertain about the idea. Table 55 contains a breakdown of the responses to this statement.

According to the information contained in table 56, vocational education should have fewer barriers to overcome in the future, as over 85 percent of the counselors and parents seemed to realize they had a biased feeling toward vocational education. Student responses were also quite high in replying to the statement that parents needed to overcome the notion that vocational education is a second-class education.

Analysis of the information in table 57 reveals that over half of the counselors disagreed that students with low grades took vocational education. However, over 40 percent of the counselors did agree with the statement. Over 50 percent of all groups except non-vocational students disagreed with the assumption that students with low grades took vocational education.

As can be seen in table 24, approximately one-third of the counselors said they counseled mostly B-C students into vocational education programs; approximately one-third

TABLE 24

FREQUENCIES AND PERCENTAGES OF GRADE RANGE OF COUNSELEES PLACED IN VOCATIONAL PROGRAMS AS REPORTED BY COUNSELORS

Grade Range of Counselees	Number	Percent
A - B	1	1.0
B - C	34	34.7
C - D	32	32.7
D - F	0	....
Distributed equally	29	29.6
No response	2	2.0
Total	98	100.0

responded to primarily placing C-D students into vocational education; and approximately one-third indicated they counseled students equally from all grade ranges into occupational programs.

An analysis of the data in table 25 reveals that 85 percent of the counselors felt vocational education a worthwhile program that would benefit most students.

In summary, the perceptions of vocational education varied as viewed by the different groups. Generally, parents and counselors were more certain and more positive in their feelings. Most responding felt that working with one's hands

TABLE 25

FREQUENCIES AND PERCENTAGES OF COUNSELORS RESPONDING TO THE QUESTION, "HOW WOULD YOU BEST DESCRIBE YOUR FEELINGS ABOUT VOCATIONAL EDUCATION AS OFFERED AT THE HIGH SCHOOL LEVEL?"

Description of Vocational Education at the High School Level	Number	Percent
A worthwhile program that would benefit most students	84	85.8
Most beneficial for lower ability students	5	5.1
The program is not worth all the expense	1	1.0
Vocational education should be offered at the post high school level rather than at the high school level	1	1.0
Other	7	7.1
Total	98	100.0

was as worthwhile as with the mind. Many felt that vocational education careers were as challenging and valuable as academic careers and better for many students, though a rather large number of students were uncertain. When asked about the prestige of a vocationally related career, students were relatively unsure, while all others felt there are such careers available with prestige.

Most involved in the study disagreed with the idea that vocational education was of little value, just an easy way to get through school, and that only students with low grades took vocational education.

When faced with the statement that parents needed to overcome the notion that vocational education is a second-class education, all groups agreed with the statement, which points up the image problem that apparently exists.

Counselors indicated a strong feeling that vocational education is a worthwhile program that would benefit most students. All groups felt the school system should be responsible for providing vocational education. Many were undecided or uninformed as to the cost, but very few felt it was too expensive.

A few felt that vocational education limited exposure to other careers. Students were uncertain about one-fourth of the time, but most felt it did not limit exposure to other careers.

As can be seen from this section, "Perceptions of Vocational Education," the information has a relationship to hypotheses 1, 10, and 14. These hypotheses pertain to students' attitude toward vocational education, counselors' knowledge and attitude toward vocational education, and counselors' attitude toward enrolling a student in a vocational education course.

Knowledge of Vocational Education

Since attitudes are determined from knowledge, a number of items were included in the questionnaires to endeavor to determine just how much was known about vocational education and how much exposure each group had experienced with vocational education. Tables 26 through 33 and tables 58 through 60 in appendix L reflect the information gathered for this purpose.

As can be seen by the data in table 26, 80 percent of the vocational students had been in industrial arts classes previous to their present status as vocational education students, while 46 percent of the non-vocational students did not take industrial arts courses in junior high school.

TABLE 26

FREQUENCIES AND PERCENTAGES OF STUDENTS RESPONDING TO THE QUESTION, "DID YOU TAKE ANY INDUSTRIAL ARTS COURSES IN JUNIOR HIGH SCHOOL?"

	Vocational Students		Non-vocational Students	
Number Taken	Number	Percent	Number	Percent
None	137	20.1	281	46.7
1	192	28.2	151	25.1
2	172	25.2	113	18.8
3	97	14.2	34	5.7
More than 3	69	10.1	22	3.7
Total	667	97.8	601	100.0

Non-vocational students were either uncertain or did not know about the content or structure of vocational education courses, as reflected by the data presented in table 27.

TABLE 27

FREQUENCIES AND PERCENTAGES OF STUDENT RESPONSES TO STATEMENT, "I WOULD LIKE TO TAKE A VOCATIONAL EDUCATION COURSE BUT AM UNSURE ABOUT WHAT I'D BE GETTING INTO."

	Vocational Students		Non-vocational Students	
Responses	Number	Percent	Number	Percent
Strongly agree	27	4.2	26	4.3
Agree	83	12.9	181	30.2
Uncertain	171	26.5	183	30.5
Disagree	249	38.6	144	24.0
Strongly disagree	115	17.8	66	11.0
Total	645	100.0	600	100.0

An analysis of responses shown in table 58 in appendix L indicates that almost 50 percent of the parents and over 50 percent of non-vocational students had never been in a vocational classroom. The vocational students were instructed to respond to this question as they would have before entering their present vocational education course. Nearly 10 percent of the vocational students said they had been in a vocational education classroom only once or twice before signing up, with the majority indicating much more familiarity than this with vocational education classrooms.

Analysis of the data in table 28 discloses that 82 percent of the non-vocational parents and 77 percent of the non-vocational students had never attended an occupational education information program.

Examination of the responses contained in table 29 shows that over 70 percent of the non-vocational students and about 55 percent of the non-vocational parents seemed to have no idea or only a vague idea of what happens in a vocational education course. Only 57 percent of the vocational parents seemed to have a fair amount of knowledge or better concerning vocational education.

Eighty-six percent or more of all respondents felt more information was needed concerning the opportunities and benefits of vocational education. Table 30 reflects this information.

Investigation of the responses in table 59 in appendix L points out that parents, counselors, and students are about equal in their agreement as to the need for more orientation and information regarding vocational education at the junior high level.

Counselors did not discuss the possibility of taking a vocational education course with nearly 80 percent of the non-vocational students according to the information displayed by the responses recorded in table 31, and 40 percent of

TABLE 28

FREQUENCIES AND PERCENTAGES OF STUDENTS AND PARENTS RESPONDING TO THE QUESTION, "HAVE YOU EVER ATTENDED AN ORIENTATION PROGRAM THAT EXPLAINED WHAT VOCATIONAL EDUCATION PROGRAMS ARE AND WHAT THEY OFFER?"

	Students				Parents			
	Vocational		Non-vocational		Vocational		Non-vocational	
Response	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Yes	359	53.8	134	22.3	146	26.9	87	17.8
No	308	46.2	466	77.7	395	72.7	400	82.0
No response	...	.....	...	.....	2	.4	1	.2
Total	667	100.0	600	100.0	543	100.0	488	100.0

TABLE 29

FREQUENCIES AND PERCENTAGES OF STUDENTS AND PARENTS RESPONDING TO THE QUESTION, "HOW MUCH DO YOU KNOW ABOUT WHAT HAPPENS IN A VOCATIONAL EDUCATION COURSE?"

Amount of Knowledge	Students				Parents			
	Vocational*		Non-vocational		Vocational		Non-vocational	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Nothing	24	3.6	150	25.0	55	10.2	72	14.8
A vague idea	64	9.7	289	48.2	177	32.8	200	41.0
Fair amount	215	32.2	116	19.3	227	42.2	168	34.3
Good	211	31.6	37	6.2	61	11.3	34	7.0
Very good	153	22.9	8	1.3	19	3.5	14	2.9
Total	667	100.0	600	100.0	539	100.0	488	100.0

*Vocational students were asked to respond as they would have before enrolling in a vocational education course.

TABLE 30

FREQUENCIES AND PERCENTAGES OF STUDENTS, PARENTS, AND COUNSELORS RESPONDING TO THE STATEMENT, "MORE INFORMATION IS NEEDED TO INFORM PARENTS AND STUDENTS OF THE OPPORTUNITIES AND BENEFITS OF VOCATIONAL EDUCATION."

	Groups Responding									
Response	Vocational Students		Non-vocational Students		Vocational Parents		Non-vocational Parents		Counselors	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Strongly agree	233	34.3	172	28.8	171	31.5	127	26.0	38	38.8
Agree	370	54.5	349	58.5	343	63.3	324	66.4	55	56.1
Undecided	57	8.4	58	9.7	20	3.7	21	4.3	3	3.1
Disagree	17	2.5	16	2.7	6	1.1	14	2.9	1	1.0
Strongly disagree	2	.3	2	.3	2	.4	2	.4	1	1.0
Total	679	100.0	597	100.0	542	100.0	488	100.0	98	100.0

TABLE 31

FREQUENCIES AND PERCENTAGES OF STUDENT RESPONSES TO THE STATEMENT, "MY COUNSELOR DISCUSSED THE POSSIBILITY OF MY TAKING A VOCATIONAL EDUCATION COURSE."

Response	Vocational Students Number	Vocational Students Percent	Non-vocational Students Number	Non-vocational Students Percent
Yes	231	34.2	45	7.5
Yes, but very little	172	25.5	78	13.0
No	272	40.3	476	79.5
Total	675	100.0	599	100.0

the vocational students said they were not counseled about vocational education courses before enrollment in them.

Counselors indicated that a variety of methods, such as group sessions, individual counseling, orientation, career programs, tours, and open houses, are used to inform students about vocational education. A breakdown of the responses in table 32 shows that a large majority of the students were informed through course descriptions or handout materials. One counselor stated that students are informed in a hit and miss manner. Another responded by saying that students are poorly informed about occupational education.

Responses from counselors indicate that students received information concerned with vocational education

TABLE 32

FREQUENCIES AND PERCENTAGES OF COUNSELOR RESPONSES AS TO HOW STUDENTS ARE INFORMED ABOUT VOCATIONAL EDUCATION

Methods of Informing Students Regarding Vocational Education	Counselor Responses	
	Number	Percent
Counselors	22	22.4
Teachers	1	1.0
Resource people	3	3.1
General orientation	14	14.3
Brochures	12	12.2
More than one	43	43.9
Other	3	3.1
Total	98	100.0

primarily at the junior high level. A smaller portion, nearly one-third, obtained information at both the junior and senior high levels. Less than 20 percent got information only after reaching the high school. A very small number received vocational information before junior high. This information is contained in table 60 in appendix L.

A review of the information presented in table 33 acknowledges the fact that parents felt that more and better informational programs regarding vocational education were desirable, as indicated by over 80 percent of both the vocational and non-vocational parents responding.

TABLE 33

FREQUENCIES AND PERCENTAGES OF PARENT RESPONSES CONCERNING QUANTITY OF INFORMATION REGARDING VOCATIONAL EDUCATION RECEIVED BY PARENTS

Information Received	Vocational Parents		Non-vocational Parents	
	Number	Percent	Number	Percent
An excessive amount of information concerning the opportunities for vocational education	21	3.9	4	.8
All the information necessary in making a decision about vocational education opportunities	83	15.3	68	14.0
Some information, but more would have been useful	275	50.5	172	35.4
Very little or no information regarding vocational opportunities	161	29.7	242	49.8
No response	3	.6	...	.....
Total	543	100.0	486	100.0

In summary, a student's knowledge of vocational education came from a variety of sources. Classes in industrial arts provided some of the information and over 80 percent of the vocational students had been involved in industrial arts. Nearly half of the non-vocational students had not. Over half of the non-vocational students had never been in a vocational education classroom, and nearly three-fourths of the non-vocational students knew nothing or had only a vague idea of what happens in a vocational education course. Over one-third of the students not taking vocational education indicated they would like to take such a course but were unsure about what they would be getting into. Three-fourths of all students responding felt a need for more opportunity to investigate vocational education at the junior high level. Compounding the problem was the fact that 40 percent of the vocational students, and twice that many non-vocational students, reported that their counselors had not discussed the possibility of their taking a vocational education course. Students also indicated that less than half of the vocational students had attended an orientation program about vocational education, and less than one-fourth of the non-vocational students had attended such a program.

Parents generally said that they had less knowledge than they desired. Approximately one-half of them had never been in a vocational education classroom. About the same number stated that they knew little or nothing about the vocational education program. Three-fourths had never attended an orientation program, and an even larger number felt that more information was needed to inform parents and students of the opportunities and benefits of vocational education.

Counselors reported that almost half of their students were informed about vocational education at the junior high level, with a little over one-fourth at the junior and senior high levels, and the remainder receiving information only at the senior high level. The majority of information came through counselors, with general orientation and brochures frequently being used.

The preceding results presented in this section are directly related to hypotheses 2 and 8, which are concerned with the students' and parents' knowledge of vocational education and a decision whether to enroll.

Who Should Take Vocational Education

Three statements on the questionnaire were directed toward determining attitudes concerning who should take vocational education. Tables 61 through 63 located in appendix M reflect the responses to these statements.

An examination of the information presented in table 61 shows an overwhelming consensus by all groups that vocational education is not just for those who aren't good at anything else. Well over 85 percent in each group disagreed with this statement.

A large percentage of all groups represented by the responses in table 62 also seemed to disagree that a student qualified for college should be discouraged from entering a vocational education career.

An analysis of the responses shown in table 63 indicates that both academically successful and academically unsuccessful students are candidates for vocational education programs, and that vocational education shouldn't be emphasized only for those who can't succeed in an academic situation.

In summary, all groups felt that vocational education should not be limited to any one specific segment, but should be available for all students.

This information is related to hypothesis 1, which is associated with student attitudes toward vocational education.

Influencing Factors on Taking Vocational Education

Other persons are naturally a major influence on students' decisions regarding enrollment in any kind of curriculum. The following information relates to a student's decision concerning vocational education courses. Tables 64 through 69 are found in appendix N.

Analysis of the information contained in table 64 shows that, although others were credited with influencing students' career decisions, parents and counselors agreed that parents had the most influence.

One-third of all students, however, felt they were the ones who made their own decisions as to whether to enroll in a vocational program. Various degrees of credit were given to others who influenced them, but no one group stood out significantly as far as the students were concerned. This information is shown in table 65.

Over two-thirds of the students felt their parents did care what courses they took, as illustrated by the figures compiled in table 66.

A review of the data in table 67 shows a large percentage of non-vocational students were uncertain as to their parents' opinion of their enrolling in vocational education courses, but 67 percent of the vocational students felt their parents would like them to take a vocational education course.

As can be seen by the figures in table 34, 69.3 percent of the non-vocational students felt their counselor gave them

TABLE 34

FREQUENCIES AND PERCENTAGES OF STUDENT RESPONSES TO STATEMENT, "MY COUNSELOR SHOWED ME WHICH VOCATIONAL EDUCATION COURSES ARE AVAILABLE."

	Vocational Students		Non-vocational Students	
Responses	Number	Percent	Number	Percent
Quite a bit	137	20.3	18	3.0
Some	242	35.9	84	14.1
Very little	106	15.8	82	13.6
None	189	28.0	415	69.3
Total	674	100.0	599	100.0

no information about the availability of vocational education courses, and another 13.6 percent felt they had received little information. Only 20 percent of the vocational students felt they were shown quite a bit about what vocational courses were available, and another 35.9 percent said their counselor had shown them some information.

From the information presented in table 35, it can be surmised that 79.5 percent of the non-vocational students felt their counselors had not discussed the possibility of their taking a vocational education course, and another 13 percent felt there was very little discussion concerning the possibility of a vocational education course. Even 40 percent of the students currently taking vocational education courses felt their counselors had not discussed taking a vocational

TABLE 35

FREQUENCIES AND PERCENTAGES OF STUDENT RESPONSES TO THE STATEMENT, "MY COUNSELOR DISCUSSED THE POSSIBILITY OF MY TAKING A VOCATIONAL EDUCATION COURSE."

	Vocational Students		Non-vocational Students	
Responses	Number	Percent	Number	Percent
Yes	231	34.2	45	7.5
Yes, but very little	172	25.5	78	13.0
No	272	40.3	476	79.5
Total	675	100.0	599	100.0

course, and another 25.5 percent said they had received very little discussion from their counselor about this possibility.

Nearly 62 percent of the vocational students stated that their counselor did not recommend they take a vocational education course, with only 38 percent of the vocational students questioned answering that their counselor had made such a recommendation. Most non-vocational students (90 percent) said their counselor had not recommended a vocational course for them. This information is contained in table 36.

TABLE 36

FREQUENCIES AND PERCENTAGES OF STUDENT RESPONSES TO STATEMENT, "MY COUNSELOR RECOMMENDED THAT I TAKE A VOCATIONAL EDUCATION COURSE."

	Vocational Students		Non-vocational Students	
Responses	Number	Percent	Number	Percent
Yes	253	38.1	58	9.8
No	411	61.9	536	90.2
Total	664	100.0	594	100.0

On the other hand, the figures in table 68 illustrate that a very large majority of the students said their counselors did not try to talk them out of taking a vocational education course.

Students in both groups felt that their friends did not try to talk them out of a vocational education course. This information is presented in table 69.

No one group seemed to stand out as being more opposed to a student's enrolling in vocational education than any other group, according to the student responses recorded in table 37. Twenty-eight percent of the vocational students

TABLE 37

FREQUENCIES AND PERCENTAGES OF STUDENT RESPONSES TO QUESTION ASKING WHO THEY FELT WOULD HAVE THE MOST OPPOSITION TO THEIR ENROLLMENT IN A VOCATIONAL PROGRAM

Who Would Have Most Opposition	Vocational Students		Non-vocational Students	
	Number	Percent	Number	Percent
Guidance counselors	84	14.5	103	23.6
Mother (or guardian)	40	6.9	81	18.5
Father (or guardian)	47	8.1	73	16.6
Friends	155	26.7	106	24.2
Teachers	57	9.8	31	7.1
Others	26	4.5	21	4.8
Both parents	8	1.4	1	0.0
No one	163	28.1	23	5.2
Total	580	100.0	439	100.0

wrote in the fact that they felt they would receive no opposition from anyone for taking a vocational education course.

In summary, the majority of parents and counselors agreed that the parents had the most influence on a student's career decision. However, when students were asked a similar question as to who influenced their decision about enrolling in a vocational education course, the largest number responded that they had made the decision themselves. Most students felt their parents did care what courses they took, and vocational students largely felt their parents agreed with their decision to take a vocational education course, while a similarly large percentage of non-vocational students were uncertain about how their parents would feel about them taking vocational education.

Only a small percentage of students felt their counselors had tried to talk them out of taking vocational education. A much larger number, 40 percent of the vocational students and 79.5 percent of the non-vocational students, said that their counselors did not discuss the possibility of their taking vocational education. Ninety percent of the non-vocational students and nearly 62 percent of the vocational students stated that their counselors had not recommended they enroll in a vocational education course.

Students felt that more opposition to their enrollment in vocational education would come from their peers, but this is a small part of the overall response, being in the middle twenty percent in both cases. Although there would be opposition to their enrollment, a number (28 percent) of the vocational students wrote in that they felt no one would oppose their choice.

The information contained in this section relates to hypothesis 6, which concerns itself with the influences of parents, counselors, and peers on the student's decision whether to enroll in vocational education.

Changes in Programs

There was a variation of opinions concerning modifications to vocational programs and those who would take them. Tables 70 through 74 located in appendix O will be referred to in remarks concerning vocational programs.

Analysis of the data in table 70 indicates that over 65 percent of the counselors felt vocational education should be a continuing program from kindergarten through grade twelve. All other groups disagreed with the counselors about these programs being offered over this long a period of time.

As can be seen by the information presented in table 71, at least 50 percent of all groups agreed that vocational education courses should be integrated into a common curriculum. Parents and counselors had the strongest feelings about this. A good percentage of all groups were uncertain about integrating vocational education courses into a common curriculum.

Parents and counselors had a tendency to agree that vocational education courses should be required for graduation. On the other hand, vocational and non-vocational students alike were not in favor of making vocational education a requirement for graduation. This information is reflected in table 72.

A majority of all of the five groups represented by the figures in table 73 agreed that graduation requirements should be modified to enable students to take vocational education. Counselors agreed with this statement the least of any of the groups.

From the data in table 74, it would appear that vocational students did not like the idea of taking vocational education courses after leaving high school--75 percent felt this way. They would rather have the courses while in high school. Non-vocational students seemed uncertain about when it would be best to take vocational education courses.

In summary, when students, parents, and counselors were asked if they felt vocational education should be a continuing K through 12 program, only counselors answered in the affirmative a majority of the time. Other groups were inclined to disagree. Students were quite undecided whether vocational education and academic courses should be integrated into a common curriculum. Those students who made a decision, as well as the other groups, generally agreed that vocational education and academic courses should be integrated into a common curriculum. Parents and counselors were inclined to agree that vocational education courses should be required for high school graduation, but students were more likely to disagree that they should be required. Vocational students and parents held the strongest feelings that graduation requirements should be modified to enable more students to take vocational education, while counselors, though the majority agreed, had over 30 percent who felt otherwise.

Student replies were varied over the statement, "I would rather take a vocational education course after I leave high school than now." Vocational students preferred to take the courses now, while non-vocational students were uncertain most often. Of the non-vocational students who could decide, the majority would prefer vocational education courses in high school.

A relationship exists between this information and hypotheses 1, 8, and 10, which deal with attitudes and/or knowledge of students, parents, and counselors about vocational education.

Area Vocational Schools

Two groups of responses were tabulated concerning area vocational schools, one with replies from students and one with replies from counselors, as shown in tables 38 and 39.

As can be seen from the data presented in table 38, counselors replied that 26.5 percent of their counselees would stay at a comprehensive high school for vocational training, 32.6 percent would go to an area vocational school, and 29.6 percent would normally be able to choose either an area vocational school or a comprehensive high school for vocational training.

TABLE 38

FREQUENCIES AND PERCENTAGES OF COUNSELORS RESPONDING CONCERNING WHICH SCHOOL IS NORMALLY ATTENDED BY VOCATIONAL EDUCATION COUNSELEES

School	Counselors Number	Counselors Percent
Comprehensive high school	26	26.5
Area vocational school	32	32.6
Able to choose either a comprehensive or area vocational school	29	29.6
Other	8	8.2
No response	3	3.1
Total	98	100.0

A great discrepancy was found between the replies of vocational and non-vocational students when asked where they would prefer to take vocational education. The area vocational concept was not favored by 90.5 percent of the non-vocational students, as compared with 2.8 percent of the vocational students feeling this way. Only 37.5 percent of the vocational students preferred going to an area vocational school. This would seem to indicate that students prefer taking vocational education within their own school. This information is presented in table 39.

In summary, although only 26.5 percent of the vocational education students attended a comprehensive high

TABLE 39

FREQUENCIES AND PERCENTAGES OF RESPONSES BY STUDENTS CONCERNING PREFERENCE FOR COMPREHENSIVE OR AREA VOCATIONAL SCHOOL

School Preferred	Vocational Students		Non-vocational Students	
	Number	Percent	Number	Percent
Area vocational school	245	37.5	19	3.2
Own school	177	27.1	13	2.2
Wouldn't matter	213	32.6	24	4.1
Would not take vocational education if had to go to an area vocational school	18	2.8	531	90.5
Total	653	100.0	587	100.0

school, a very large majority of the non-vocational students (90.5 percent) indicated they would not take a vocational education course if they were required to attend an area vocational school.

The evidence presented relates to hypothesis 2, which is associated with a student's decision to enroll in a vocational education course.

Profile of Student and Family

Tables 75 through 79 found in appendix P provide the basis for the profile of the vocational and non-vocational student as determined by various items on the questionnaires submitted to them.

Most students in the schools surveyed were caucasian, with Mexican-American students being the only other group exceeding 2 percent of the student population. Of those surveyed, the ethnic groups other than white and Mexican-American were about evenly distributed. The Mexican-American group, it is interesting to note, had approximately twice the percentage enrolled in a vocational program as those not enrolled in such a program. A breakdown of this information is contained in table 75.

As can be seen in table 76, a very large portion of the students had no idea concerning the family income. There appeared to be few families in the lower income ranges, with progressively more in each income range as the size of the income increased. Eighteen percent of the vocational families and 30 percent of the non-vocational families had incomes over $15,000 per year, according to the students completing the questionnaires.

Occupations as reported by parents were broken down into nine groups (see appendix F for a breakdown within each of the groups shown in table 77). The data in table 77 indicates that the fathers of vocational students would be in largest numbers in the area of trades and industries, while the fathers of non-vocational students were more numerous in the business, technical, and professions areas.

The other areas seemed to have an equal percentage from both non-vocational and vocational families.

The mothers in vocational families and non-vocational families would be found in approximately equal numbers in any given area. Approximately 40 percent of the mothers in both groups did not work out of the home. Of those who did work outside the home, the largest number were in businesses or offices.

The information in table 78 verifies the impression that vocational students are from families with less formal education than non-vocational students. Approximately one-half of the fathers of vocational students had a high school diploma or less, while nearly half of the fathers of non-vocational students had completed some form of education beyond high school. Mothers in both groups had less education than the fathers, with mothers of vocational students having the least amount. It is interesting to note that approximately 16 percent of those in all four classifications entered some form of education after high school but did not complete it.

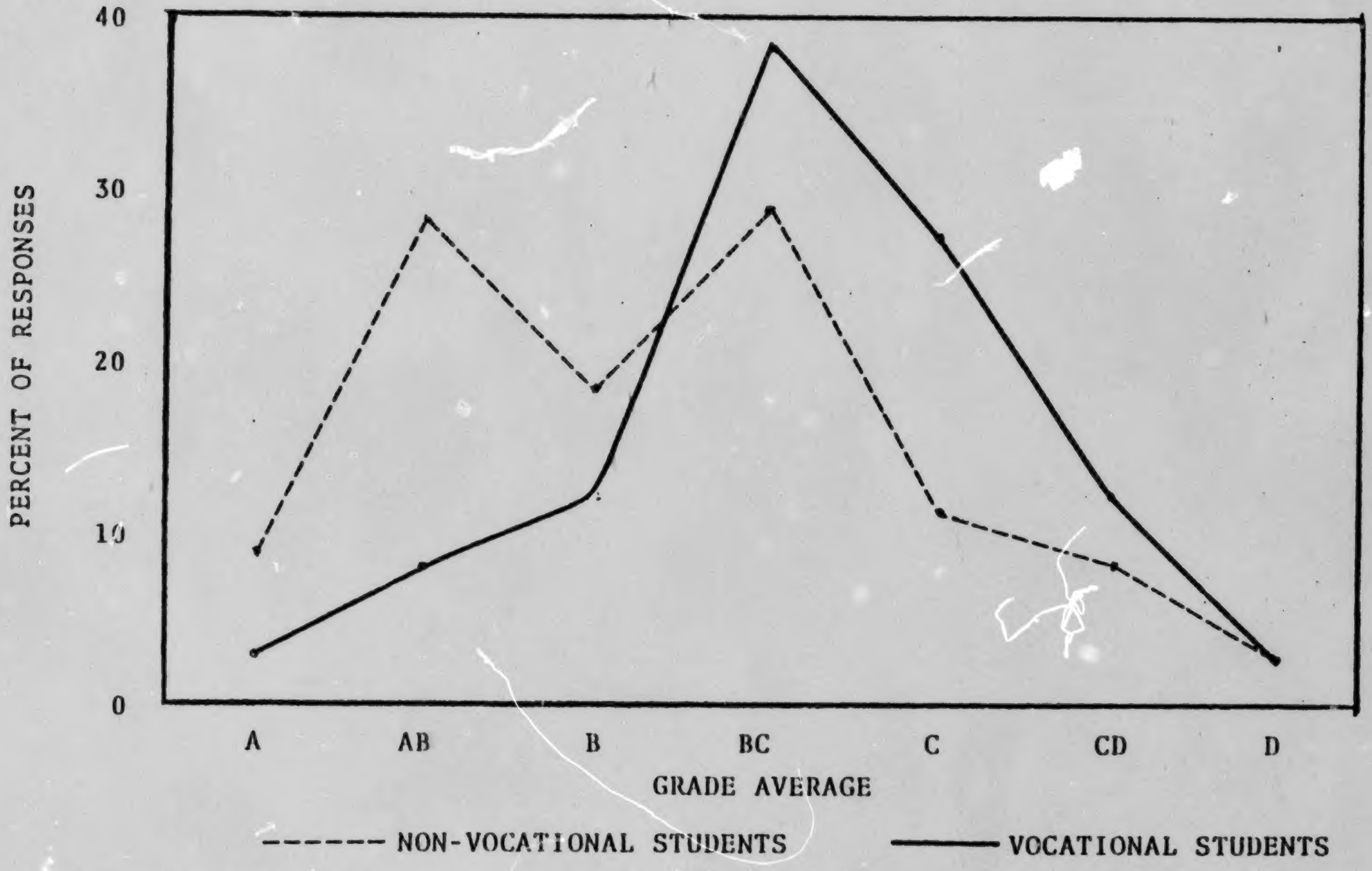
Table 79 lists the grade averages that students felt they had over the past four years. The mean grade for non-vocational students is higher than for vocational students. The pattern of grades is somewhat unusual, and is really better illustrated by graph 1 in figure 2.

In summary, the profile of a vocational student in this study would show that the student felt he had a grade

FIGURE 2

GRAPH NUMBER ONE

GRADE AVERAGES AS REPORTED BY STUDENTS



average of B to C, while the non-vocational student would have either an A to B average or a B to C average, with the odds about even.

The caucasian student had a slightly better chance to be in a non-vocational class than a vocational class, but the Mexican-American student had almost twice the chance to be enrolled in a vocational class than not to be enrolled in a vocational class.

The non-vocational student would come from a family with a somewhat higher average educational level and income than the vocational student. The vocational father's occupation would probably be in an area of trades and industry, while the father in the non-vocational family likely would be in a technical, business, or professional field.

This information relates to hypotheses 4, 5, and 9, concerned with the demographic data about students and their families.

Parents' Feelings About Further Education

Tables 80 through 90 (found in appendix Q) are concerned with the feelings of both students and parents and what thought had been given to the future and to future education of the students.

When asked how much thought had been given to a future job and employment by them, over 70 percent of the students in both groups indicated that much thought had been given to the future. Less than 5 percent had given little thought to future job plans. This data is presented in table 80.

Analysis of the responses in table 81 indicates that there is little difference in the numbers of vocational and non-vocational students who had made decisions on what they wanted to do after high school. Half felt they knew what they wanted to do, while only 20 percent were undecided. The remainder thought they knew what they wanted to do after high school.

Analysis of the data shown in table 82 discloses the fact that by the time vocational students entered high school, only 18 percent had decided what they wanted to do after high school, while 30 percent of the non-vocational students had made the decision. All but one-fourth of the students surveyed in both groups, both juniors and seniors, had decided before or during high school as to what they would do in the future.

A review of the data in table 83 reveals that most parents of both vocational students and non-vocational students had discussed future plans with the students, the parents of non-vocational students a bit more than the vocational parents.

One can note from the data in table 84 that students felt their choice of career was important to their parents. Over three-fourths of the students responded that they felt their choice was either fairly important, quite important, or very important to their parents.

Parents and students, when asked a similar question concerning the parents' desire that the students obtain further education, indicated, as shown in table 85, that parents felt it important for students to continue their education after high school. Parents of non-vocational students felt the most strongly about this, as disclosed by both students and parents.

Analysis of information presented in table 86 reveals that over half of the vocational students' parents left the decision about college attendance up to the student, while over 50 percent of the non-vocational parents urged and expected their children to attend college.

The same basic question concerning the importance of a college education was put to the students in a different form, and the parents were asked the same question as were the students. More parents felt it very important or quite important that their children go to college than the students realized. Over half of all parents felt it very important or quite important that their children go to college. This information is presented in table 87.

The responses shown in table 88 illustrate that parents' educational plans or desires for their children and the students' educational plans are very similar. Nearly half of the vocational students plan to go on for further education, and over three-fourths of the non-vocational students plan to go on for additional education. The majority of non-vocational students expect to enter degree programs; while vocational students expect to enter technical, trade, or business programs.

As can be seen from the data in table 89, a large majority of responding parents felt that vocational training would be a worthwhile experience for their children. Less than 8 percent of non-vocational parents would oppose their children's enrollment in vocational education, and a majority of all parents would not object to their child's decision to enroll in vocational education courses.

Parents were asked if they felt their children's choices for a life's work were realistic, in terms of ability, aptitude, etc. Table 90 can be interpreted as showing that 75 percent of the parents responding were satisfied with their children's career choices.

In summary, students indicated they had thought a great deal about their future job or employment. Most felt they knew what they want to do after high school and the decision was made before or while in high school. About three-fourths of the students had discussed their future plans with their parents, and the parents did have an interest in their plans. Parents indicated that they placed more importance on their sons or daughters acquiring more education than students did. Parents of non-vocational students felt stronger about this than vocational parents. Further education for non-vocational families generally meant a four-year college; while vocational families leaned toward vocational, technical, or business school.

Parents were asked if they felt their child or children would benefit from vocational training in high school, and nearly all agreed they would benefit from it. They also indicated that they would not oppose their children enrolling in vocational education courses.

Parents were also asked if they felt their child's choice of life work was realistic, and 75 percent indicated they did.

The information in this section is associated with hypothesis 3, concerning the relationship between student career goals and decisions concerning enrollment in vocational education.

Counselor Profile

The data used to build a profile of the average counselor in the schools surveyed is presented in tables 91 through 102 (found in appendix R).

The information presented in table 91 indicates that counselors were represented in each of the following age groupings: 20-24; 25-29; 30-35; 36-45; and over 45. The largest number of the counselors (nearly 45 percent) fell within the 36 to 45 age bracket, with nearly 30 percent of the counselors being over 45, and 17 percent being in the 30 to 35 age group. Only about 7 percent were under 30 years of age. The majority of those counseling (92 percent), therefore, were 30 years of age or older.

As shown in table 92, men and women were about equally represented, with a slightly larger number of men acting as counselors than women.

A review of the data in table 93 reveals that counselors had teaching backgrounds from all different areas. The majority came from areas that had little direct contact with the world of work other than education: 19.4 percent were English teachers; 27.6 percent had been social science teachers; 5.1 percent were from the fine arts area; and 10.2 percent had taught physical education. On the other hand, 13.3 percent were from the practical arts, and 14.2 percent had either math or science backgrounds. Ten percent did not indicate a teaching background.

The figures in table 94 show that counselors had a minimum of one to three years of teaching experience prior to counseling. The largest number responding had four to six years teaching experience prior to counseling, representing nearly 35 percent. Other groups were about equal in representation.

An analysis of the data in table 95 demonstrates that the largest number of counselors (39.8 percent) had been counseling from four to eight years, while 23.5 percent had been counseling for from nine to twelve years, and 17.3 percent for more than twelve years. Those with the least experience in counseling (three years or less) accounted for 19.4 percent of those represented.

Most of the counselors indicated that they worked full time at counseling, with only 13 percent replying that they worked less than full time at counseling. This information is contained in table 96.

Counselors reported that they had from less than 100 to over 400 students they counseled. The mean number of students counseled was 319. A composite of this information is contained in table 97.

The information in table 98 reveals that most of the students were assigned to the counselors by alphabetical order. Some were assigned randomly, and less than 10 percent were assigned by some other method not specifically listed in the questionnaire.

Analysis of information presented in table 99 indicates that counselors had counseled from none to one hundred students who had enrolled in vocational education. The mean number of counselees enrolled in vocational education was 41.53. The mean number of all students enrolled by counselors was 319. From these figures it was computed that 13 percent of the counselors' students were enrolled in a vocational program.

A review of the data in table 100 indicates that 9 percent of those counseling had worked less than one year full time in a job other than education. About 57 percent had worked from one to five years, and 30 percent had worked outside of education for over five years.

A surprisingly large number of counselors replied that they had taken either high school or post high school vocational education courses. Nearly 41 percent said they had, and that they had worked in the trade; 16 percent had taken courses but had not worked in the trade; 41.9 percent of those responding had no vocational background. The responses to this item are given in table 101.

One can note from the data presented in table 102 that 46.8 percent of the counselors claimed to have looked into what is taught and how in vocational classes, 29.2 percent had observed vocational education classes, and 18.8 percent had had the experience of a visit to the vocational education classroom in their school.

In summary, a profile of the average counselor, as compiled from the information reported by the counselors surveyed, would put the chances of the counselor being a man or woman as pretty even, with the chances being slightly in favor of the men. The average age bracket of the counselors was found to be between 36 and 45.

The chances were also about even that the counselor would have taken some type of vocational education course either in high school or after, and would have held some type of job out of the educational field for from one to five years.

The person being described would have been counseling for from four to eight years, after having taught four to six years, probably in English or social science. That person would be a full time counselor with 319 counselees, 13 percent of whom would be taking a vocational education course. The counselor would have probably looked into the vocational program to see what was taught and how.

This section, "Counselor Profile," is provided to give the reader a clearer view of the counselor when evaluating counselor reaction as presented in this report.

Counselors' View of Parents' Attitudes

The information presented in table 103 in appendix S is a comparison of parents' attitudes toward vocational education and the counselors' view of the parents' attitudes. Each statement on the questionnaire was recoded so that in each case 4 represented the strongest positive attitude toward vocational education and 0 the least positive attitude. The mean score was then computed for each question for each group. An average mean score was computed from each group, and it was found that both vocational parents and non-vocational parents recorded a more positive attitude toward vocational education than the counselors perceived. This same information is reflected in graph 2 in a more visual form.

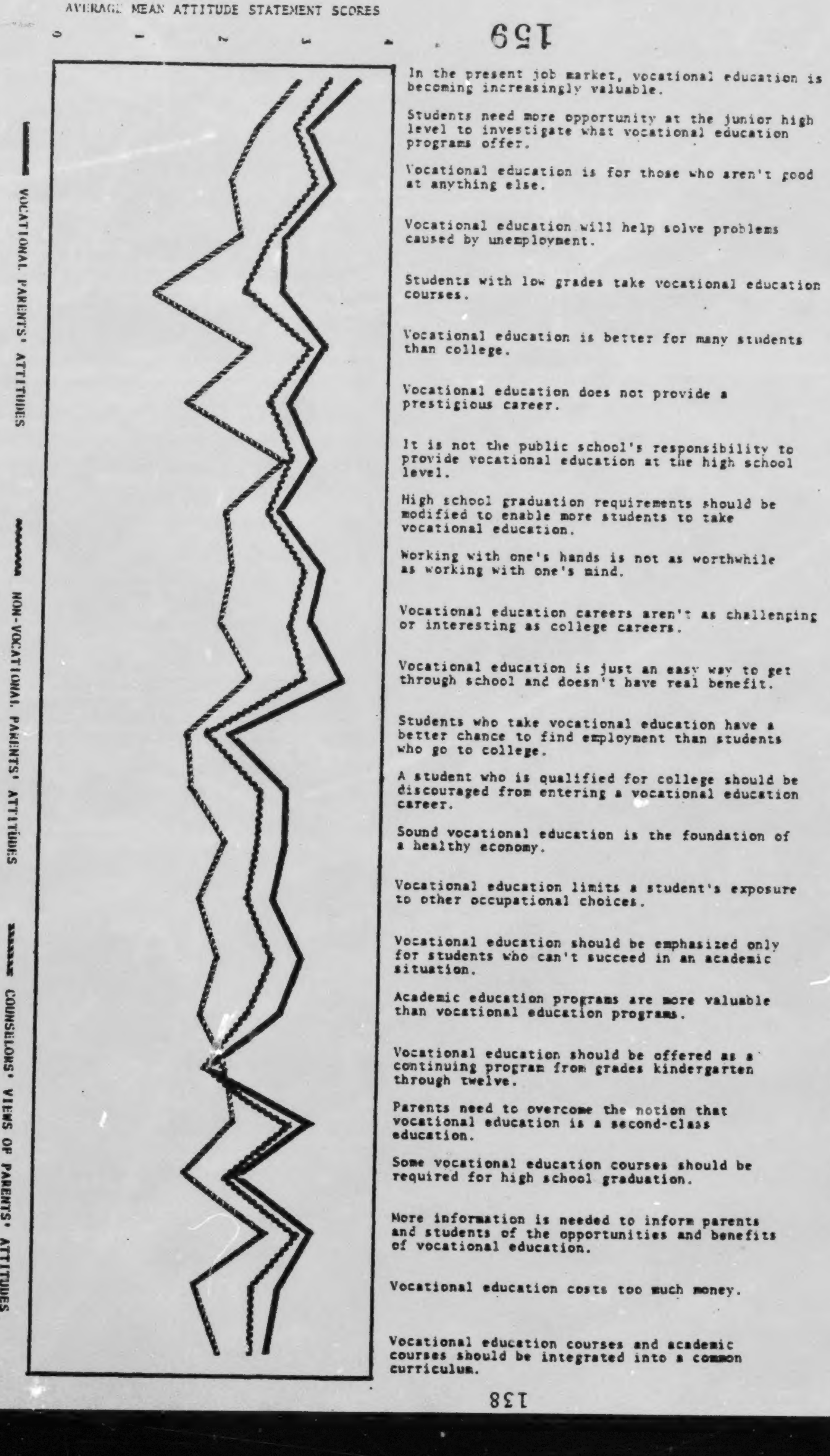
Parents of vocational students showed a somewhat higher mean on individual statements than non-vocational parents, but in most cases followed the same pattern as the non-vocational parents, and were higher than counselors felt they would be.

Analysis of the statements showing the greatest difference between parent responses and how counselors felt parents would respond shows that parents have less adverse feelings about vocational education being only for those with low grades or ability than counselors realized. Parents also indicated more

FIGURE 3

GRAPH NUMBER TWO

COMPARISON OF PARENTS' ATTITUDES TOWARD VOCATIONAL EDUCATION AND THE COUNSELORS' VIEWS OF THE PARENTS' ATTITUDES



of a feeling for vocational worth than counselors had perceived. The prestige afforded those in a vocational program was also rated higher by parents than counselors had indicated it would be. Graph 2 in figure 3 illustrates how counselors in most every case misjudged the attitudes of parents toward vocational education.

The information presented in this section will help illuminate hypothesis 14, which is concerned with the counselors' view of the parents' attitude concerning vocational education.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The major purpose of this study was to isolate the perceptions and influences that relate to a student's decision whether to enroll in a vocational education course. Specific variables were analyzed to ascertain existing relationships and to provide a starting point for modification of these perceptions and influences which seem to deter students who could benefit from enrollment in vocational education. It was of importance to identify and compare the present perceptions and influences of students, their parents and counselors for future evaluating, orienting, counseling, and curriculum planning for vocational education programs in the state of Colorado.

An attitude questionnaire was constructed to measure attitudes toward vocational education and knowledge of vocational education. Statements were drawn from a group of seventy people consisting of teachers, students, parents, and counselors. Items were also drawn from a previous study by Dr. Ivan E. Valentine of Colorado State University. The following procedures were used to construct, validate, and check reliability of the attitude questionnaire.

A list of sixty statements related to vocational education was made up with responses in the form of a Likert-type scale. Five vocational education teachers rated each statement either favorable or unfavorable toward vocational education on a zero-to-four scale.

A questionnaire was then constructed and administered to a total of 174 students at El Paso Community College and the University of Colorado, Colorado Springs. The scores were ranked and divided, with the top twenty-five percent most favorable and the low twenty-five percent least favorable statements being used. A _t_ test was run between the high and low groups. Twenty-four statements were selected with _t_ scores ranging from 2.79 to 8.52. Twelve statements were in favor and twelve statements were not in favor of vocational education.

To check the reliability of the questionnaire, it was given to a group of students at the University of Colorado, with the results showing a correlation of .86, indicating that the instrument was valid.

Separate data gathering instruments were developed for students, parents, and counselors. Each of the different instruments was made up of two sections; one was the attitude questionnaire, and the other to collect demographic and specific information from each group.

The participants of the study were selected so the findings could be projected throughout the state of Colorado. The areas surveyed represented the major portion of the population, as well as diverse geographic and economic areas. The six school districts surveyed were Boulder Valley School District RE-2, Colorado Springs School District 11, Fort Morgan School District RE-3, Littleton School District 6, Mesa County Valley School District 51, and Pueblo School District 60. The areas in the survey represented approximately seventy-five percent of the population of Colorado.

The sampling size in each district included approximately one hundred non-vocational students, one hundred vocational students, with an equal number of parents for each group. One hundred and eight counselors were surveyed in the six school districts. This amounted to a total of 2,508 participants. One hundred percent of the students' questionnaires were returned as they were administered in each district by Brown and Clark. Over eighty percent of the parent questionnaires were returned to the school or by mail. Of the counselors surveyed, ninety-one percent returned the questionnaires.

In order to measure various differences in the variables, the groups were stratified into vocational and non-vocational. Clark surveyed the vocational students and their parents in each school district, and Brown surveyed the non-vocational students and their parents. The counselor questionnaires were administered in each school district the same day as their counselees were being surveyed.

The data was collected from the school districts in November and December of 1975 on the following dates:

November 10, School District 11; November 12, School District 60; November 17, School District 51; November 19, School District 6; December 4, School District RE-2; and December 10, School District RE-3.

Analysis of data was done from commercially punched and verified computer cards at the University of Colorado computer center. The Statistical Procedure for Social Sciences (SPSS) program was used. The analysis of variance and subsequent F test were used to test the significance of differences among the various groups at the .01 confidence level. The Pearson Product-Moment Coefficient of Correlation was computed for four of the hypotheses with the null hypotheses being rejected if the correlation was significant at the .01 or .05 level. When the means of two groups were compared by _t_ test, the .01 level was used to test significance. Remaining hypotheses were tested using the Chi-square method, and the null hypotheses were rejected or accepted at the .01 level. All responses of items that pertained to the perceptions of vocational education were figured and compared on a percentage basis.

Conclusions

The conclusions reached from this study are based on data collected for the study. Fifteen hypotheses were tested, and the following conclusions were drawn after analysis of the hypotheses

1. There is a significant difference in the attitude toward vocational education held by those enrolled in vocational education from the attitude held by those not in a vocational education course, with those enrolled holding the more favorable attitude.
2. There is a significant relationship between the student's decision to enroll in vocational education and his/her prior knowledge of vocational education. Several sources of potential knowledge were compared, and in each case the vocational student had been involved to a significantly greater degree than the non-vocational student. Students who had been enrolled in an industrial arts class; had been in a vocational education classroom; had visited local industry; had attended an orientation program; or had been shown which courses were available by their counselors were more likely to be enrolled in a vocational education course than those who had not.
3. There is a significant relationship between a student's career goals and his/her decision to enroll in a vocational education course. Students were asked what kind of work they expected to be doing ten years from now. Most vocational students expected to be working in a field for which vocational education is a prerequisite, while non-vocational students ranged

from professional positions to unskilled, but few listed occupations requiring vocational training.

4. There is no significant relationship between the income level of the family and the student's attitude toward vocational education.
5. There is no significant relationship between the student's ethnic background and his/her attitude toward vocational education.
6. There is a significant difference in the influence of parents, counselors, and peers on the vocational student and the non-vocational student. Vocational students felt that peers had the most influence, while non-vocational students felt that parents had the most influence. Many students felt that they alone had made the decision whether or not to enroll in a vocational education class. Parents and counselors felt that parents had the most influence. The writers feel that students may not realize what influences are actually involved in decisions, and parents may well be the ones who exert the most influence.
7. There is a significant relationship between the students' and parents' attitudes toward vocational education for both vocational

and non-vocational groups. Parents of vocational and non-vocational students indicated a more favorable perception toward vocational education than did their children.

8. There is a significant relationship between the parents' knowledge of vocational education and their attitude toward vocational education. A correlation of parents' knowledge and attitudes, though low, was significant, and indicated that parents with greater knowledge of vocational education would likely have a more favorable attitude.
9. There is a significant relationship between the parents' educational level and their attitude toward vocational education. The correlation between the father's educational level and an average of both mother and father indicated a negative coefficient. The coefficient was again low, but significant, showing that there is the probability that the less education parents have, the higher would be their attitude toward vocational education.
10. There is no significant relationship between a counselor's knowledge of vocational education and his/her attitude toward vocational education.
11. There is no significant relationship between the counselor's work experience outside of the academic

world and the ratio of counselees enrolled in vocational education.

12. There is no significant difference in the ratio of students enrolled in vocational education by those counselors with a favorable attitude toward vocational education and those with an unfavorable attitude toward vocational education.

13. There is a significant difference in the parents' attitude toward vocational education and the counselors' perception of the parents' attitude toward vocational education. A comparison of the mean attitude score for vocational and non-vocational parents with the counselors' view of parents' attitudes showed that counselors estimated parents' attitudes to be much lower than they actually were. Of particular interest was the difference noted between parents' and counselors' responses to the statements concerning who should take vocational education, the worth of vocational education, and the prestige afforded those in a vocational education program. Counselors consistently underestimated parents' feelings in these areas.

14. There is a significant relationship between a student's grades and the counselor's attitude toward enrolling the student in a vocational education course. An analysis of variance

was made, comparing student grades with student replies to two statements concerning vocational education information supplied by the counselor and the counselor's recommendation whether to take a vocational education course. A definite relationship between student grades and counselor attitude toward enrolling the student in vocational education was established. A comparison of grades for vocational and non-vocational students confirmed that vocational students had a lower grade average.

15. There is no significant difference in the attitudes toward vocational education in the metropolitan areas of Colorado. The attitudes of parents, students, and counselors toward vocational education were compared for the six areas surveyed. There was no significant difference among the groups from the various areas. Therefore, it can be inferred that the data, information, and recommendations of this study will be equally valid throughout the state of Colorado.

Individual item responses from the questionnaires were analyzed. The following conclusions relating to a student's decision to enroll in a vocational education course were formulated:

1. The majority of parents and counselors felt that vocational education was necessary for a strong economy, with an even stronger majority feeling it was becoming increasingly valuable in the present economy.
2. A large portion of those surveyed were uncertain if vocational training would be an advantage in the job market over a college-type education. When considering that eighty percent of jobs available over the next few years will require training of a vocational nature, this is unfortunate.
3. Students often displayed an uncertainty when asked questions relating to vocational education. Vocational students had more knowledge and displayed a more favorable attitude than did non-vocational students. Non-vocational students, while indicating a generally favorable attitude, appeared at times to consider vocational education less worthy than an academic education.
4. Parents and counselors felt that working with one's hands was as worthwhile as working with one's mind, and that this type of work could provide a prestigious career. Students were generally uncertain if this was true.
5. Students, parents, and counselors disagreed with the notion that only students with low grades

took vocational education. A comparison of grade averages showed the vocational students' grades followed a reasonably normal curve, peaking at the B-C level. Non-vocational students' grades showed a bi-modal curve, peaking at the B-C level and at the A-B level. The mean grade for the non-vocational student was somewhat higher than for the vocational student.

6. All groups surveyed agreed that parents needed to overcome the notion that vocational education is a second-class education, which points up the image problem that apparently exists.
7. Counselors indicated a more favorable attitude toward vocational education than any other group, and stated that vocational education was a worthwhile program that would benefit most students. However, approximately seventy percent of the non-vocational and sixty percent of the vocational students reported that their counselors had not recommended that they enroll in vocational education.
8. All groups surveyed were in agreement that the school districts should be responsible for providing vocational education programs. Many were uncertain of the cost of vocational education programs, but very few felt they cost more than their worth.

9. Parents and counselors generally agreed that taking a vocational education course would not limit exposure to other careers. Nearly all parents felt that their child or children could benefit from vocational training and would not oppose their enrolling.
10. Over eighty percent of the vocational education students had taken industrial arts courses, while less than half of the non-vocational students had.
11. Over half of the non-vocational students had never been in a vocational education classroom.
12. Nearly three-fourths of the non-vocational students knew nothing or had only a vague idea of what happens in a vocational education course. Approximately half of the students' parents had the same view.
13. More than one-third of the students not enrolled in a vocational education course indicated that they would have liked to, but were unsure of what they would be getting into.
14. Counselors reported that almost half of their counselees were informed about vocational education at the junior high level, with about one-fourth receiving information at both the junior and senior high levels, and one-fourth receiving information only at the senior high level. Three-fourths of all students felt a

need for more opportunity to investigate vocational education at the junior high level.

15. Counselors stated that the majority of vocational education information came through them with general orientation and brochures frequently used. Forty percent of the vocational students and twice that many non-vocational students reported that their counselors had not discussed the possibility of their enrolling in a vocational education course. Over half of the vocational students and more than three-fourths of the non-vocational students had never attended an orientation program concerning vocational education.
16. Parents felt very strongly the need for more information concerning the opportunities and benefits available with vocational education.
17. All groups surveyed felt that vocational education should not be limited to any one segment of the school population, but should be available for all students.
18. Parents and counselors had a tendency to agree that vocational education should be required for graduation. Students did not agree.

19. The majority of parents and students, and nearly half of the counselors felt that graduation requirements should be modified to allow more students to enroll in vocational education.

20. The majority of vocational students and nearly half of the non-vocational students preferred to take a vocational education course while in high school rather than after graduation. Half of the non-vocational students were undecided.

21. Eighty-eight percent of the non-vocational students reported that they would not take a vocational course if they had to enroll in an area vocational school. As some of the area vocational schools in the state are experiencing difficulty in obtaining full enrollment, a case could be made for the comprehensive high school where the student can obtain the training within the school.

22. Most high school students had thought a great deal about their future job or employment and had made a decision about their future, either in high school or before.

23. Three-fourths of the students surveyed had discussed their future plans with their parents and the parents were interested in the plans made.

24. Parents had a stronger desire for their sons or daughters to go on for more education than did the students.

25. Further education for non-vocational families generally meant a four-year college, while vocational families leaned toward vocational, technical, or business school.

26. Seventy-five percent of the parents surveyed felt their child's choice of life work was realistic.

27. While a fairly large number questioned were unsure, half of all groups felt that vocational education and academic courses should be integrated into a common curriculum.

Recommendations

The following recommendations as a result of this study are made by the writers:

1. The State Board for Community Colleges and Occupational Education should prepare a booklet showing the areas of employment where jobs will be available when students graduate from high school. The booklet should describe the type of work done, the advantages and disadvantages, and the educational requirements for entry level skills.

2. A similar, though less detailed, brochure should be prepared, to be available to students and parents through the schools.
3. The State Department of Education or some similar organization should call a conference of counselors and administrators to discuss the subject of why counselors explain or recommend vocational education courses for so few.
4. Vocational instructors should write a course description for each vocational course for use by counselors, giving information about the course content, objectives, methods of instruction, prerequisites for enrolling, and end result or entry level skill to be expected.
5. A counselor at each school should be appointed to coordinate a program that will inform all students and parents of the opportunities and benefits available with vocational education.
6. An effort should be made at the junior high level to involve students in a program or programs that will give them a basis for career decisions.
7. More effort should be made to encourage students to enroll in industrial arts courses at the junior high level.

8. School districts should consider the possibility of modifying graduation requirements to enable more students to enroll in a vocational program.
9. School districts should consider the possibility of requiring some occupational education to assure that a student is employable when graduated from high school.
10. School districts with area vocational schools, to more completely utilize the existing facilities, should initiate or expand the orientation of students and parents to the area vocational school before the time a decision must be made whether to enroll in a vocational program.
11. School districts planning new or expanded vocational programs should consider the possibility of including such programs in a comprehensive high school rather than in an area vocational school.
12. School districts should determine the feasibility of integrating vocational education and academics into one curriculum.

Additional Research

It is recommended that the following research be considered:

1. That a study be made to determine the relationship between counselors' attitudes

toward vocational education and their counselees' attitudes toward vocational education.

2. That a study be conducted to determine what stigma is attached to vocational education, or why parents consider vocational education as a second-class education.
3. That a study be done to determine why counselors recommend vocational education to such a limited number of students.
4. That a study be made to determine the best method or methods of getting occupational information to students and parents.

It is hoped by the writers that the results of this study will lead to expanded opportunities for the student to gain the necessary information needed to make an intelligent choice of a life career through improved career exploratory efforts and general guidance of students regarding vocational education.

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APPENDICES

APPENDIX A

QUESTIONNAIRES USED TO DEVELOP AND VALIDATE STATEMENTS ABOUT VOCATIONAL EDUCATION

COLLECTION OF STATEMENTS

INSTRUCTIONS: We are compiling a questionnaire which will indicate knowledge and attitudes toward vocational education. In order to have all areas represented, we need to collect information from several groups of people. Your assistance in this will be appreciated.

Please consider each item below and write statements you feel pertain to each of them.

A. Give two statements that would indicate a person's knowledge of vocational education.

Example: High school students who take vocational education cannot go on to college. or Students who take vocational education can make a higher income than many college oriented students.

A. 1. ____________________

____

A. 2. ____________________

____

B. Give one statement that you feel would indicate the status of vocational education.

Example: Vocational education courses have less prestige than academic courses. or Vocational education students are envied by their friends.

B. ____________________

____

C. Give three statements that would represent an attitude, either favorable or unfavorable, toward vocational education.

Example: Vocational education is an excellent opportunity for high school students. or Vocational education should not be offered at the high school level.

C. 1. ____________________

____

C. 2. ____________________

____

C. 3. ____________________

____

D. Give one statement that would indicate the importance or lack of importance of vocational education.

Example: Vocational education will help a student find a job after high school. or Taking vocational education will keep students from taking more important courses

D. ____________________

____

Thank you for your time. James E. Brown Gary M Clark

9

CONSTRUCTION QUESTIONNAIRE

The following statements were gathered from a group consisting of students, counselors, academic teachers, and vocational teachers. They are being used to construct a questionnaire to help determine attitudes toward vocational education. While many of the statements will not be used on the final questionnaire, it is important that you carefully consider each statement and mark your personal feeling as to whether you Strongly Agree, Agree, are Uncertain, Disagree, or Strongly Disagree with the statement. The responses will then be tested statistically, and the statements to go into the questionnaire will be selected. The questionnaire will then be given to another group and the validity and reliability will be checked before use in the study.

Thank you for taking the time to complete this questionnaire. It is greatly appreciated.

James E. Brown
Gary M. Clark

____ Strongly Agree
____ Agree
____ Uncertain
____ Disagree
____ Strongly Disagree

1. Students who take vocational education have a better chance to find employment than students who go to college.

____ Strongly Agree
____ Agree
____ Uncertain
____ Disagree
____ Strongly Disagree

2. Vocational education courses are considered "dumping grounds" by academic teachers.

____ Strongly Agree
____ Agree
____ Uncertain
____ Disagree
____ Strongly Disagree

3. Vocational education offers the high school student who wants to go to work immediately the chance to learn an employable skill.

____ Strongly Agree
____ Agree
____ Uncertain
____ Disagree
____ Strongly Disagree

4. My friends and/or associates feel that taking a vocational education course is an excellent opportunity.

____ Strongly Agree
____ Agree
____ Uncertain
____ Disagree
____ Strongly Disagree

5. Work in the "front office" is better than work in "the shop" even though the pay may be about the same or even better in "the shop."

____ Strongly Agree
____ Agree
____ Uncertain
____ Disagree
____ Strongly Disagree

6. Vocational education is not for every student--most should go on to college.

____ Strongly Agree
____ Agree
____ Uncertain
____ Disagree
____ Strongly Disagree

7. Vocational education courses and academic courses should be integrated into a common curriculum.

____ Strongly Agree
____ Agree
____ Uncertain
____ Disagree
____ Strongly Disagree

8. Vocational education is better for many students than college.

____ Strongly Agree
____ Agree
____ Uncertain
____ Disagree
____ Strongly Disagree

9. Many college graduates cannot find jobs, while jobs requiring vocational training are available.

____ Strongly Agree
____ Agree
____ Uncertain
____ Disagree
____ Strongly Disagree

10. Parents are skeptical about the status of vocational education, and therefore, push students toward academic preparation.

____ Strongly Agree
____ Agree
____ Uncertain
____ Disagree
____ Strongly Disagree

11. Vocational education should be offered from Grade 10 on.

____ Strongly Agree
____ Agree
____ Uncertain
____ Disagree
____ Strongly Disagree

12. Parents need to overcome the notion that vocational education is a second-class education.

____ Strongly Agree
____ Agree
____ Uncertain
____ Disagree
____ Strongly Disagree

13. It is not the public school's responsibility to provide vocational education at the high school level.

____ Strongly Agree
____ Agree
____ Uncertain
____ Disagree
____ Strongly Disagree

14. Sound vocational education is the foundation of a healthy economy.

____ Strongly Agree
____ Agree
____ Uncertain
____ Disagree
____ Strongly Disagree

15. Vocational education is held in higher esteem than ever before.

16. Vocational education is for those who can't do anything else.

_____ Strongly Agree
_____ Agree
_____ Uncertain
_____ Disagree
_____ Strongly Disagree

17. A "vocational" student is usually far more motivated than an "academic" student.

_____ Strongly Agree
_____ Agree
_____ Uncertain
_____ Disagree
_____ Strongly Disagree

18. Students need more opportunity at the junior high level to investigate what vocational education programs offer.

_____ Strongly Agree
_____ Agree
_____ Uncertain
_____ Disagree
_____ Strongly Disagree

19. Many high school graduates are not prepared for joining the job market or institutions of higher learning.

_____ Strongly Agree
_____ Agree
_____ Uncertain
_____ Disagree
_____ Strongly Disagree

20. Vocational education is a good idea if it does not interfere with academic subjects.

_____ Strongly Agree
_____ Agree
_____ Uncertain
_____ Disagree
_____ Strongly Disagree

21. A student who is qualified for college should be discouraged from entering a vocational education course.

_____ Strongly Agree
_____ Agree
_____ Uncertain
_____ Disagree
_____ Strongly Disagree

22. High school graduation requirements should be modified to enable more students to take vocational education.

_____ Strongly Agree
_____ Agree
_____ Uncertain
_____ Disagree
_____ Strongly Disagree

23. Many students who are in college preparatory courses should be in vocational education.

_____ Strongly Agree
_____ Agree
_____ Uncertain
_____ Disagree
_____ Strongly Disagree

24. Vocational education has never achieved the status of academic courses.

_____ Strongly Agree
_____ Agree
_____ Uncertain
_____ Disagree
_____ Strongly Disagree

____ Strongly Agree
____ Agree
____ Uncertain
____ Disagree
____ Strongly Disagree

25. Vocational education is just as relevant as any other course, and has a unique place in the educational system.

____ Strongly Agree
____ Agree
____ Uncertain
____ Disagree
____ Strongly Disagree

26. Vocational education careers aren't as challenging or interesting as college careers.

____ Strongly Agree
____ Agree
____ Uncertain
____ Disagree
____ Strongly Disagree

27. There is dignity in the world of work for those who work with their hands.

____ Strongly Agree
____ Agree
____ Uncertain
____ Disagree
____ Strongly Disagree

28. There are many students in our community who could profit from vocational training (job preparation) while still in high school.

____ Strongly Agree
____ Agree
____ Uncertain
____ Disagree
____ Strongly Disagree

29. The majority of high school students should be prepared for a vocation before leaving school.

____ Strongly Agree
____ Agree
____ Uncertain
____ Disagree
____ Strongly Disagree

30. Academic education programs are more valuable than vocational education programs.

____ Strongly Agree
____ Agree
____ Uncertain
____ Disagree
____ Strongly Disagree

31. Vocational education has less prestige than other fields of education.

____ Strongly Agree
____ Agree
____ Uncertain
____ Disagree
____ Strongly Disagree

32. Most of the students taking vocational education don't have what it takes to go on to college.

____ Strongly Agree
____ Agree
____ Uncertain
____ Disagree
____ Strongly Disagree

33. Ability to succeed in an occupation requires interest and desire.

34. Only students with low grades take vocational education courses.

____ Strongly Agree
____ Agree
____ Uncertain
____ Disagree
____ Strongly Disagree

35. Vocational education programs do not fully prepare students for work.

____ Strongly Agree
____ Agree
____ Uncertain
____ Disagree
____ Strongly Disagree

36. Without vocational education, students are prepared for college or nothing.

____ Strongly Agree
____ Agree
____ Uncertain
____ Disagree
____ Strongly Disagree

37. Vocational students can get higher paying jobs than some professionals, but not the prestige.

____ Strongly Agree
____ Agree
____ Uncertain
____ Disagree
____ Strongly Disagree

38. Vocational education is very important for students with manual skills or no ambition to go to college.

____ Strongly Agree
____ Agree
____ Uncertain
____ Disagree
____ Strongly Disagree

39. Vocational education should be required of all students who do not plan to enter a college or university.

____ Strongly Agree
____ Agree
____ Uncertain
____ Disagree
____ Strongly Disagree

40. A student with a solid vocational education background is probably better off than a college graduate.

____ Strongly Agree
____ Agree
____ Uncertain
____ Disagree
____ Strongly Disagree

41. Vocational education is a necessary alternative for students not interested in the traditional academic preparation.

____ Strongly Agree
____ Agree
____ Uncertain
____ Disagree
____ Strongly Disagree

42. Vocational education should replace some elective subjects.

____ Strongly Agree
____ Agree
____ Uncertain
____ Disagree
____ Strongly Disagree

____ Strongly Agree
____ Agree
____ Uncertain
____ Disagree
____ Strongly Disagree

43. Vocational education should be offered as a continuing program throughout the public school life.

____ Strongly Agree
____ Agree
____ Uncertain
____ Disagree
____ Strongly Disagree

44. Students of all ability levels should be encouraged to consider vocational education.

____ Strongly Agree
____ Agree
____ Uncertain
____ Disagree
____ Strongly Disagree

45. More information is needed to inform parents and students of the opportunities and benefits of vocational education.

____ Strongly Agree
____ Agree
____ Uncertain
____ Disagree
____ Strongly Disagree

46. Vocational education does not provide for a prestigeous career.

____ Strongly Agree
____ Agree
____ Uncertain
____ Disagree
____ Strongly Disagree

47. Vocational education is just an easy way to get through school and doesn't have any real benefit.

____ Strongly Agree
____ Agree
____ Uncertain
____ Disagree
____ Strongly Disagree

48. High school is structured primarily for college-bound students.

____ Strongly Agree
____ Agree
____ Uncertain
____ Disagree
____ Strongly Disagree

49. It is important for students to prepare for jobs while still in high school.

____ Strongly Agree
____ Agree
____ Uncertain
____ Disagree
____ Strongly Disagree

50. Vocational education should be the responsibility of industry, not high schools.

____ Strongly Agree
____ Agree
____ Uncertain
____ Disagree
____ Strongly Disagree

51. In the present job market, vocational education is becoming increasingly valuable.

____ Strongly Agree 52. Vocational students are often envied by their friends.
____ Agree
____ Uncertain
____ Disagree
____ Strongly Disagree

____ Strongly Agree 53. Vocational education costs too much money.
____ Agree
____ Uncertain
____ Disagree
____ Strongly Disagree

____ Strongly Agree 54. Vocational education should be emphasized only for students who can't succeed in an academic situation.
____ Agree
____ Uncertain
____ Disagree
____ Strongly Disagree

____ Strongly Agree 55. Vocational education is not a prestige problem these days.
____ Agree
____ Uncertain
____ Disagree
____ Strongly Disagree

____ Strongly Agree 56. Working with one's hands is not as worthwhile as working with one's mind.
____ Agree
____ Uncertain
____ Disagree
____ Strongly Disagree

____ Strongly Agree 57. Vocational education limits a student's exposure to other occupational choices.
____ Agree
____ Uncertain
____ Disagree
____ Strongly Disagree

____ Strongly Agree 58. Job satisfaction may be higher for those in a vocation rather than in a profession.
____ Agree
____ Uncertain
____ Disagree
____ Strongly Disagree

____ Strongly Agree 59. Vocational education will help solve problems caused by unemployment.
____ Agree
____ Undecided
____ Disagree
____ Strongly Disagree

____ Strongly Agree 60. Some vocational education courses should be required for high school graduation.
____ Agree
____ Uncertain
____ Disagree
____ Strongly Disagree

VALIDATION QUESTIONNAIRE

The following questionnaire has been designed to aid in gathering information concerning the varying perceptions of vocational education as they are related to parents, counselors, and students. It is very important that you answer each question with the one answer that best expresses your feeling.

For the purpose of answering this questionnaire, vocational education is defined as those courses at the high school level designed to teach a student the necessary entry level skills needed to get a job in a trade or industry.

Thank you for your time and effort.

Gary M. Clark
James E. Brown

1. In the present job market, vocational education is becoming increasingly valuable.

_____ Strongly Agree
_____ Agree
_____ Uncertain
_____ Disagree
_____ Strongly Disagree

2. Students need more opportunity at the junior high level to investigate what vocational education programs offer.

_____ Strongly Agree
_____ Agree
_____ Uncertain
_____ Disagree
_____ Strongly Disagree

3. Vocational education is for those who can't do anything else.

_____ Strongly Agree
_____ Agree
_____ Uncertain
_____ Disagree
_____ Strongly Disagree

4. Vocational education will help solve problems caused by unemployment.

_____ Strongly Agree
_____ Agree
_____ Uncertain
_____ Disagree
_____ Strongly Disagree

5. Only students with low grades take vocational education courses.

_____ Strongly Agree
_____ Agree
_____ Uncertain
_____ Disagree
_____ Strongly Disagree

6. Vocational education is better for many students than college.

_____ Strongly Agree
_____ Agree
_____ Uncertain
_____ Disagree
_____ Strongly Disagree

7. Vocational education does not provide a prestigious career.

_____ Strongly Agree
_____ Agree
_____ Uncertain
_____ Disagree
_____ Strongly Disagree

____ Strongly Agree
____ Agree
____ Uncertain
____ Disagree
____ Strongly Disagree

8. It is not the public school's responsibility to provide vocational education at the high school level.

____ Strongly Agree
____ Agree
____ Uncertain
____ Disagree
____ Strongly Disagree

9. High school graduation requirements should be modified to enable more students to take vocational education.

____ Strongly Agree
____ Agree
____ Uncertain
____ Disagree
____ Strongly Disagree

10. Working with one's hands is not as worthwhile as working with one's mind.

____ Strongly Agree
____ Agree
____ Uncertain
____ Disagree
____ Strongly Disagree

11. Vocational education careers aren't as challenging or interesting as college careers.

____ Strongly Agree
____ Agree
____ Uncertain
____ Disagree
____ Strongly Disagree

12. Vocational education is just an easy way to get through school and doesn't have any real benefit.

____ Strongly Agree
____ Agree
____ Uncertain
____ Disagree
____ Strongly Disagree

13. Students who take vocational education have a better chance to find employment than students who go to college.

____ Strongly Agree
____ Agree
____ Uncertain
____ Disagree
____ Strongly Disagree

14. A student who is qualified for college should be discouraged from entering a vocational education course.

____ Strongly Agree
____ Agree
____ Uncertain
____ Disagree
____ Strongly Disagree

15. Sound vocational education is the foundation of a healthy economy.

____ Strongly Agree
____ Agree
____ Uncertain
____ Disagree
____ Strongly Disagree

16. Vocational education limits a student's exposure to other occupational choices.

17. Vocational education should be emphasized only for students who can't succeed in an academic situation.

____ Strongly Agree
____ Agree
____ Uncertain
____ Disagree
____ Strongly Disagree

18. Academic education programs are more valuable than vocational education programs.

____ Strongly Agree
____ Agree
____ Uncertain
____ Disagree
____ Strongly Disagree

19. Vocational education should be offered as a continuing program throughout the public school life.

____ Strongly Agree
____ Agree
____ Uncertain
____ Disagree
____ Strongly Disagree

20. Parents need to overcome the notion that vocational education is a second-class education.

____ Strongly Agree
____ Agree
____ Uncertain
____ Disagree
____ Strongly Disagree

21. Some vocational education courses should be required for high school graduation.

____ Strongly Agree
____ Agree
____ Uncertain
____ Disagree
____ Strongly Disagree

22. More information is needed to inform parents and students of the opportunities and benefits of vocational education.

____ Strongly Agree
____ Agree
____ Uncertain
____ Disagree
____ Strongly Disagree

23. Vocational education costs too much money.

____ Strongly Agree
____ Agree
____ Uncertain
____ Disagree
____ Strongly Disagree

24. Vocational education courses and academic courses should be integrated into a common curriculum.

____ Strongly Agree
____ Agree
____ Uncertain
____ Disagree
____ Strongly Disagree

APPENDIX B

DATA GATHERING INSTRUMENTS

STUDENT QUESTIONNAIRE

VPTVE

QUESTIONNAIRE

varying perceptions
toward
vocational education

Developed by

James E. Brown and Gary M. Clark

1975

The following questionnaire has been designed to aid in gathering information concerning the varying perceptions of vocational education as they are related to parents, counselors, and students. It is very important that you answer each question with the one answer that best expresses your feeling by placing a check before the appropriate response.

Do not place your name anywhere on the questionnaire. There is a number in the corner to aid in knowing where the questionnaire is from. All responses will be held in the strictest confidence and no reference to individuals or their replies will be made at any time.

> For the purpose of answering this questionnaire, vocational education is defined as those courses at the high school level designed to teach a student the necessary entry level skills needed to get a job in a trade or industry.

Thank you for your time and effort.

PART A

Please disregard the figures in front of the responses--they are for computer coding only.

C6
0——Strongly Agree
1——Agree
2——Uncertain
3——Disagree
4——Strongly Disagree

1. In the present job market, vocational education is becoming increasingly valuable.

C7
0——Strongly Agree
1——Agree
2——Uncertain
3——Disagree
4——Strongly Disagree

2. Students need more opportunity at the junior high level to investigate what vocational education programs offer.

C8
0——Strongly Agree
1——Agree
2——Uncertain
3——Disagree
4——Strongly Disagree

3. Vocational education is for those who aren't good at anything else.

C9
0——Strongly Agree
1——Agree
2——Uncertain
3——Disagree
4——Strongly Disagree

4. Vocational education will help solve problems caused by unemployment.

C10
0——Strongly Agree
1——Agree
2——Uncertain
3——Disagree
4——Strongly Disagree

5. Students with low grades take vocational education courses.

C11
0——Strongly Agree
1——Agree
2——Uncertain
3——Disagree
4——Strongly Disagree

6. Vocational education is better for many students than college.

C12
0——Strongly Agree
1——Agree
2——Uncertain
3——Disagree
4——Strongly Disagree

7. Vocational education does not provide a prestigious career.

C13
0——Strongly Agree
1——Agree
2——Uncertain
3——Disagree
4——Strongly Disagree

8. It is not the public school's responsibility to provide vocational education at the high school level.

C14
0——Strongly Agree
1——Agree
2——Uncertain
3——Disagree
4——Strongly Disagree

9. High school graduation requirements should be modified to enable more students to take vocational education.

C15
0——Strongly Agree
1——Agree
2——Uncertain
3——Disagree
4——Strongly Disagree

10. Working with one's hands is not as worthwhile as working with one's mind.

C16
0——Strongly Agree
1——Agree
2——Uncertain
3——Disagree
4——Strongly Disagree

11. Vocational education careers aren't as challenging or interesting as college careers.

C17
0——Strongly Agree
1——Agree
2——Uncertain
3——Disagree
4——Strongly Disagree

12. Vocational education is just an easy way to get through school and doesn't have real benefit.

C18
0——Strongly Agree
1——Agree
2——Uncertain
3——Disagree
4——Strongly Disagree

13. Students who take vocational education have a better chance to find employment than students who go to college.

C19
0——Strongly Agree
1——Agree
2——Uncertain
3——Disagree
4——Strongly Disagree

14. A student who is qualified for college should be discouraged from entering a vocational education career.

C20
0——Strongly Agree
1——Agree
2——Uncertain
3——Disagree
4——Strongly Disagree

15. Sound vocational education is the foundation of a healthy economy.

C21
0——Strongly Agree
1——Agree
2——Uncertain
3——Disagree
4——Strongly Disagree

16. Vocational education limits a student's exposure to other occupational choices.

C22
0——Strongly Agree
1——Agree
2——Uncertain
3——Disagree
4——Strongly Disagree

17. Vocational education should be emphasized only for students who can't succeed in an academic situation.

C23
0——Strongly Agree
1——Agree
2——Uncertain
3——Disagree
4——Strongly Disagree

18. Academic education programs are more valuable than vocational education programs.

C24
0——Strongly Agree
1——Agree
2——Uncertain
3——Disagree
4——Strongly Disagree

19. Vocational education should be offered as a continuing program from grades kindergarten through twelve.

C25
0——Strongly Agree
1——Agree
2——Uncertain
3——Disagree
4——Strongly Disagree

20. Parents need to overcome the notion that vocational education is a second-class education.

C26
0——Strongly Agree
1——Agree
2——Uncertain
3——Disagree
4——Strongly Disagree

21. Some vocational education courses should be required for high school graduation.

C27
0——Strongly Agree
1——Agree
2——Uncertain
3——Disagree
4——Strongly Disagree

22. More information is needed to inform parents and students of the opportunities and benefits of vocational education.

C28
0——Strongly Agree
1——Agree
2——Uncertain
3——Disagree
4——Strongly Disagree

23. Vocational education costs too much money.

C29
0——Strongly Agree
1——Agree
2——Uncertain
3——Disagree
4——Strongly Disagree

24. Vocational education courses and academic courses should be integrated into a common curriculum.

PART B

Continue with Part B, filling in the information in the blanks or checking your choice of responses as you did in Part A.

1. School: ______________________________

2. Grade:
C30
1——11
5——12

3. Father's or Guardian's Occupation: ____________
C31 ____

4. Mother's or Guardian's Occupation: ____________
C32 ____

5. Sex:
C33
1——Female
5——Male

6. Ethnic Background:
C34
0____White
1____Black
2____Mexican-American
3____Indian-American
4____Asian-American
5____Other (please indicate) ______________________

7. Who was your 10th grade counselor? ______________________
C35 ____
C36 ____

8. How long have you lived in this city?
C37
0____less than 1 year
1____1 to 2 years
2____3 to 4 years
3____5 to 6 years
4____7 to 8 years
5____9 years or longer

9. What kind of work do you expect to be doing ten years from now?
____
C38 ____
C39 ____

10. What do you estimate as the income of your family?
C40
0____I have no idea.
1____less than $3,000
2____$3,000 to $4,999
3____$5,000 to $6,999
4____$7,000 to $8,999
5____$9,000 to $10,999
6____$11,000 to $12,999
7____$13,000 to $14,999
8____over $15,000

11. My grades during the past four years averaged
C41
0____A
1____AB
2____B
3____BC
4____C
5____CD
6____D

12. My educational plans beyond high school are
C42
0____college or university (4 years).
1____community college.
2____technical or trade school.
3____business school.
4____Armed Forces.
5____other (please specify). ______________________
6____really don't know.

13. How do your parents feel about your attending college?
C43
0____Take it for granted I will go to college.
1____Actively urge me to go to college.
2____Just say it is up to me.
3____Have mixed feelings about my attending college.
4____Are somewhat opposed to my attending college.
5____Don't know.

14. How important is it to your parents that you go to college?
C44
0——Very important
1——Quite important
2——Fairly important
3——Not very important
4——Not important at all
5——Really don't know

15. How important is it to your parents that you go on for more education?
C45
0——Very important
1——Quite important
2——Fairly important
3——Not very important
4——Not important at all
5——Really don't know

16. How important is your choice of a career to your parents?
C46
0——Very important
1——Quite important
2——Fairly important
3——Not very important
4——Not important at all
5——Really don't know

17. Are you presently enrolled in a vocational program?
C47
1——Yes
5——No

18. The decision whether to enroll in a vocational program was influenced mostly by
C48
0——my guidance counselor
1——friends my own age
2——parents (or guardian)
3——other members of the family
4——teachers.
5——other (please specify)

19. I feel that the most opposition to my enrolling in a vocational program would come from
C49
0——guidance counselors
1——mother (or guardian)
2——father (or guardian)
3——friends
4——teachers
5——others (please specify) ________________

20. I have thought about my future job and employment
C50
0——a great deal.
1——a lot.
2——some.
3——not much.
4——confused about plans.

21. Do you know what you want to do after high school?
C51
0——Yes.
1——I think I know.
2——Undecided.

22. I decided what I want to do after high school in
C52
0——elementary school.
1——junior high.
2——senior high.
3——undecided.

23. My parents and I have discussed my future plans
C53
0——quite a bit.
1——some.
2——very little.
3——none.

24. My parents don't care what courses I take.
C54
0——Strongly Agree
1——Agree
2——Uncertain
3——Disagree
4——Strongly Disagree

25. My parents would like to have me take a vocational education course.
C55
0——Strongly Agree
1——Agree
2——Uncertain
3——Disagree
4——Strongly Disagree

26. I would like to take a vocational education course but am unsure about what I'd be getting into.
C56
0——Strongly Agree
1——Agree
2——Uncertain
3——Disagree
4——Strongly Disagree

27. My counselor recommended that I take a vocational education course.
C57
1——Yes
5——No

28. My counselor discussed the possibility of my taking a vocational education course.
C58
0——Yes.
1——Yes, but very little.
2——No.

29. My counselor showed me which vocational education courses are available.
C59
0——Quite a bit.
1——Some.
2——Very little.
3——None.

30. My counselor talked me out of taking a vocational education course.
C60
0——Definitely.
1——Tried to.
2——Hinted at it.
3——Did not try.

31. My friends talked me out of taking a vocational education course.
C61
0——Definitely.
1——Tried to.
2——Hinted at it.
3——Did not try.

32. If I were to take a vocational education course,
C62
0——I would prefer to go to an area vocational school.
1——I would prefer to take it at my own school.
2——It wouldn't matter where I would go.
3——I would not take vocational education if I had to go
to an area vocational school.

33. I would rather take a vocational education course after I leave high school than now.
C 63
0——Strongly Agree
1——Agree
2——Uncertain
3——Disagree
4——Strongly Disagree

34. Did you take any industrial arts courses in junior high school?
C64
0——No
1——Yes, 1
2——Yes, 2
3——Yes, 3
4——Yes, more than 3

35. Have you ever been in a vocational education classroom?
C65
0——Never
1——Once or twice
2——Occasionally
3——Fairly often
4——Whenever I have the opportunity

36. How many of your friends take vocational education?
C66
0——None (0)
1——Some (1 to 3)
2——A few (4 to 8)
3——Many (more than 8)

37. Have you ever attended an orientation program that explained what vocational education programs are and what they offer?
C67
1——Yes
5——No

38. How often in the past year have you had the opportunity to visit a local industry (not where you work)?
C68
0——None
1——Once or twice
2——Occasionally
3——Fairly often
4——Whenever I have the opportunity

39. How much do you feel you know about what happens in a vocational education course?
C69
0——Nothing
1——A vague idea
2——Have fair amount of knowledge
3——Good knowledge
4——Very good knowledge

40. Has any member of your family ever taken a vocational education course?
C70
1——Yes
5——No

PARENT QUESTIONNAIRE

VPTVE

QUESTIONNAIRE

varying perceptions
toward
vocational education

Developed by

James E. Brown and Gary M. Clark

1975

cde

COLORADO DEPARTMENT OF EDUCATION
State Office Building, 201 E. Colfax
Denver, Colorado 80203
Telephone (303) 892-2212
Calvin M. Frazier, *Commissioner*

Dear Parent:

I would like to call your attention to this particular study. Mr. Brown and Mr. Clark have endeavored to investigate a statewide concern that has frequently surfaced as we have engaged in many recent career education and vocational education discussions.

As you will note, in their questionnaire they are trying to get at the concerns and perceptions existing as students contemplate enrollment in vocational education offerings. If we are to improve our career exploratory efforts and our general guidance to all students in regard to vocational education offerings, your help is most important in helping educators define such feelings. Because of the interest in this study, we will endeavor to circulate broadly the results of the study.

Sincerely,
Calvin M. Frazier
Commissioner of Education

Dear Parent:

We are conducting a study to help identify and compare the varying perceptions toward vocational education of students, their parents, and their counselors.

This study will attempt to isolate the perceptions and influences that relate to a student's decision to enroll in a vocational education course.

The findings should be useful in the following ways:

1. To help in evaluating the pre-vocational programs now offered
2. To help in formulating plans for pre-vocational programs for the future
3. To help in evaluating the need for and content of informational programs for students and parents
4. To help in evaluating counselor effectiveness in counseling students concerning vocational education

The study is to be conducted in six metropolitan areas of Colorado. Your district was chosen because of its location and the vocational education programs run in the district. As you can see from the enclosed letter from Dr. Frazier, Colorado Commissioner of Education, he feels that this study can provide needed information for use throughout the state. To successfully complete this study, we need and would appreciate your cooperation.

The following questionnaire has been designed to aid in gathering information concerning the varying perceptions of vocational education as they are related to parents, counselors, and students. It is very important that you answer each question with the one answer that best expresses your feeling by placing a check before the appropriate response.

Do not place your name anywhere on the questionnaire. There is a number in the corner to aid in knowing where the questionnaire is from. All responses will be held in the strictest confidence and no reference to individuals or their replies will be made at any time.

For the purpose of answering this questionnaire, vocational education is defined as those courses at the high school level designed to teach a student the necessary entry level skills needed to get a job in a trade or industry.

Thank you for your time and effort.

PART A

Please disregard the figures in front of the responses--they are for computer coding only.

C6
0____Strongly Agree
1____Agree
2____Uncertain
3____Disagree
4____Strongly Disagree

1. In the present job market, vocational education is becoming increasingly valuable.

C7
0____Strongly Agree
1____Agree
2____Uncertain
3____Disagree
4____Strongly Disagree

2. Students need more opportunity at the junior high level to investigate what vocational education programs offer.

C8
0____Strongly Agree
1____Agree
2____Uncertain
3____Disagree
4____Strongly Disagree

3. Vocational education is for those who aren't good at anything else.

C9
0____Strongly Agree
1____Agree
2____Uncertain
3____Disagree
4____Strongly Disagree

4. Vocational education will help solve problems caused by unemployment.

C10
0____Strongly Agree
1____Agree
2____Uncertain
3____Disagree
4____Strongly Disagree

5. Students with low grades take vocational education courses.

C11
0____Strongly Agree
1____Agree
2____Uncertain
3____Disagree
4____Strongly Disagree

6. Vocational education is better for many students than college.

C12
0 —— Strongly Agree
1 —— Agree
2 —— Uncertain
3 —— Disagree
4 —— Strongly Disagree

7. Vocational education does not provide a prestigious career.

C13
0 —— Strongly Agree
1 —— Agree
2 —— Uncertain
3 —— Disagree
4 —— Strongly Disagree

8. It is not the public school's responsibility to provide vocational education at the high school level.

C14
0 —— Strongly Agree
1 —— Agree
2 —— Uncertain
3 —— Disagree
4 —— Strongly Disagree

9. High school graduation requirements should be modified to enable more students to take vocational education.

C15
0 —— Strongly Agree
1 —— Agree
2 —— Uncertain
3 —— Disagree
4 —— Strongly Disagree

10. Working with one's hands is not as worthwhile as working with one's mind.

C16
0 —— Strongly Agree
1 —— Agree
2 —— Uncertain
3 —— Disagree
4 —— Strongly Disagree

11. Vocational education careers aren't as challenging or interesting as college careers.

C17
0 —— Strongly Agree
1 —— Agree
2 —— Uncertain
3 —— Disagree
4 —— Strongly Disagree

12. Vocational education is just an easy way to get through school and doesn't have real benefit.

C18
0 —— Strongly Agree
1 —— Agree
2 —— Uncertain
3 —— Disagree
4 —— Strongly Disagree

13. Students who take vocational education have a better chance to find employment than students who go to college.

C19
0 —— Strongly Agree
1 —— Agree
2 —— Uncertain
3 —— Disagree
4 —— Strongly Disagree

14. A student who is qualified for college should be discouraged from entering a vocational education career.

C20
0 —— Strongly Agree
1 —— Agree
2 —— Uncertain
3 —— Disagree
4 —— Strongly Disagree

15. Sound vocational education is the foundation of a healthy economy.

C21
0 —— Strongly Agree
1 —— Agree
2 —— Uncertain
3 —— Disagree
4 —— Strongly Disagree

16. Vocational education limits a student's exposure to other occupational choices.

C22
0——Strongly Agree
1——Agree
2——Uncertain
3——Disagree
4——Strongly Disagree

17. Vocational education should be emphasized only for students who can't succeed in an academic situation.

C23
0——Strongly Agree
1——Agree
2——Uncertain
3——Disagree
4——Strongly Disagree

18. Academic education programs are more valuable than vocational education programs.

C24
0——Strongly Agree
1——Agree
2——Uncertain
3——Disagree
4——Strongly Disagree

19. Vocational education should be offered as a continuing program from grades kindergarten through twelve.

C25
0——Strongly Agree
1——Agree
2——Uncertain
3——Disagree
4——Strongly Disagree

20. Parents need to overcome the notion that vocational education is a second-class education.

C26
0——Strongly Agree
1——Agree
2——Uncertain
3——Disagree
4——Strongly Disagree

21. Some vocational education courses should be required for high school graduation.

C27
0——Strongly Agree
1——Agree
2——Uncertain
3——Disagree
4——Strongly Disagree

22. More information is needed to inform parents and students of the opportunities and benefits of vocational education.

C28
0——Strongly Agree
1——Agree
2——Uncertain
3——Disagree
4——Strongly Disagree

23. Vocational education costs too much money.

C29
0——Strongly Agree
1——Agree
2——Uncertain
3——Disagree
4——Strongly Disagree

24. Vocational education courses and academic courses should be integrated into a common curriculum.

PART B

Continue with Part B, filling in the information in the blanks or checking your choice of responses as you did in Part A.

1. How important is it to you that your child or children go on for more education beyond high school?

C30
0——Very important
1——Quite important
2——Fairly important
3——Not very important
4——Not important at all
8——No opinion

2. What are your present educational plans for your child or children beyond high school?
   C31
   0——College or University (4 years)
   1——Community College (2 years)
   2——Technical or Trade School
   3——Business School
   4——Enter Armed Forces
   5——Other (please specify) ______________________________

   6——Really don't know
   7——None of these

3. In your opinion, are your child or children's choice for a life's work realistic, in terms of ability, aptitude, etc.?
   C32
   0——Yes
   1——No
   8——No opinion

4. Do you think your child or children would profit from having some vocational training (job preparation) while in high school?
   C33
   1——Yes
   5——No

5. Would you oppose your child's decision to enroll in vocational education courses in high school (to prepare for the world of work)?
   C34
   0——Yes
   1——No
   8——No opinion

6. How important is it to you that your child or children have a college education?
   C35
   0——Very important
   1——Quite important
   2——Fairly important
   3——Not very important
   4——Not important at all
   8——No opinion

7. Who do you feel has the most influence on a student's career decision?
   C36
   0——Parents
   1——Peers
   2——Counselors
   3——Teachers
   4——Other members of the family
   5——Others: ______________________________
   ____

8. Do you feel that you have received
   C37
   0——an excessive amount of information concerning the opportunities for vocational education?
   1——all the information necessary in making a decision about vocational education opportunities?
   2——some information, but more would have been useful?
   3——very little or no information regarding vocational opportunities?

9. Check the statement that would most correctly indicate your educational background.

Father C38	Mother C39	
0——	0——	Did not graduate from high school.
1——	1——	High school graduate.
2——	2——	Trade or vocational school or community college, not completed.
3——	3——	Entered college, but did not complete.
4——	4——	Completed vocational or trade school or community college.
5——	5——	Completed 4 years of college or university.
6——	6——	Received master's degree.
7——	7——	Received graduate degree beyond master's.

10. Indicate your occupation.

Father
C40 ______________________________

Mother
C41 ______________________________

11. How often in the past year have you had the opportunity to visit a local industry (not where you work)?

C42
0——None
1——Once or twice
2——Occasionally
3——Fairly often
4——Whenever I have the opportunity

12. Have you ever attended an orientation program that explained what vocational education programs are and what they offer?

C43
1——Yes
5——No

13. Have you ever been in a vocational education classroom?

C44
0——Never
1——Once or twice
2——Occasionally
3——Fairly often
4——Whenever I have the opportunity

14. How much do you feel you know about what happens in a vocational education course?

C45
0——Nothing
1——A vague idea
2——Have a fair amount of knowledge
3——Good knowledge
4——Very good knowledge

15. Has any member of your family ever taken a vocational education course?

C46
1——Yes
5——No

COUNSELOR QUESTIONNAIRE

VPTVE

QUESTIONNAIRE

varying perceptions
toward
vocational education

Developed by

James E. Brown and Gary M. Clark

1975

cde

COLORADO DEPARTMENT OF EDUCATION
State Office Building, 201 E. Colfax
Denver, Colorado 80203
Telephone (303) 892-2212
Calvin M. Frazier, *Commissioner*

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The following questionnaire has been designed to aid in gathering information concerning the varying perceptions of vocational education as they are related to parents, counselors, and students. It is very important that you answer each question with the one answer that best expresses your feeling. In the first column, indicate your feelings. In the second column, indicate how you feel most parents would respond to the statement.

Do not place your name anywhere on the questionnaire. There is a number in the corner to aid in knowing where the questionnaire is from. All responses will be held in the strictest confidence and no reference to individuals or their replies will be made at any time.

For the purpose of answering this questionnaire, vocational education is defined as those courses at the high school level designed to teach a student the necessary entry level skills needed to get a job in a trade or industry.

Thank you for your time and effort.

PART A

Please disregard the figures in front of the responses--they are for computer coding only.

Your Response	Parents Response	
C6	C30	
0—— Strongly Agree	0——	1. In the present job market, vocational education is becoming increasingly valuable.
1—— Agree	1——	
2—— Uncertain	2——	
3—— Disagree	3——	
4—— Strongly Disagree	4——	
C7	C31	
0—— Strongly Agree	0——	2. Students need more opportunity at the junior high level to investigate what vocational education programs offer.
1—— Agree	1——	
2—— Uncertain	2——	
3—— Disagree	3——	
4—— Strongly Disagree	4——	
C8	C32	
0—— Strongly Agree	0——	3. Vocational education is for those who aren't good at anything else.
1—— Agree	1——	
2—— Uncertain	2——	
3—— Disagree	3——	
4—— Strongly Disagree	4——	
C9	C33	
0—— Strongly Agree	0——	4. Vocational education will help solve problems caused by unemployment.
1—— Agree	1——	
2—— Uncertain	2——	
3—— Disagree	3——	
4—— Strongly Disagree	4——	
C10	C34	
0—— Strongly Agree	0——	5. Students with low grades take vocational education courses.
1—— Agree	1——	
2—— Uncertain	2——	
3—— Disagree	3——	
4—— Strongly Disagree	4——	

Your Response	Parents Responses	
C11	C35	
0——Strongly Agree	0——	6. Vocational education is better for many students than college.
1——Agree	1——	
2——Uncertain	2——	
3——Disagree	3——	
4——Strongly Disagree	4——	
C12	C36	
0——Strongly Agree	0——	7. Vocational education does not provide a prestigious career.
1——Agree	1——	
2——Uncertain	2——	
3——Disagree	3——	
4——Strongly Disagree	4——	
C13	C37	
0——Strongly Agree	0——	8. It is not the public school's responsibility to provide vocational education at the high school level.
1——Agree	1——	
2——Uncertain	2——	
3——Disagree	3——	
4——Strongly Disagree	4——	
C14	C38	
0——Strongly Agree	0——	9. High school graduation requirements should be modified to enable more students to take vocational education.
1——Agree	1——	
2——Uncertain	2——	
3——Disagree	3——	
4——Strongly Disagree	4——	
C15	C39	
0——Strongly Agree	0——	10. Working with one's hands is not as worthwhile as working with one's mind.
1——Agree	1——	
2——Uncertain	2——	
3——Disagree	3——	
4——Strongly Disagree	4——	
C16	C40	
0——Strongly Agree	0——	11. Vocational education careers aren't as challenging or interesting as college careers.
1——Agree	1——	
2——Uncertain	2——	
3——Disagree	3——	
4——Strongly Disagree	4——	
C17	C41	
0——Strongly Agree	0——	12. Vocational education is just an easy way to get through school and doesn't have real benefit.
1——Agree	1——	
2——Uncertain	2——	
3——Disagree	3——	
4——Strongly Disagree	4——	
C18	C42	
0——Strongly Agree	0——	13. Students who take vocational education have a better chance to find employment than students who go to college.
1——Agree	1——	
2——Uncertain	2——	
3——Disagree	3——	
4——Strongly Disagree	4——	
C19	C43	
0——Strongly Agree	0——	14. A student who is qualified for college should be discouraged from entering a vocational education career.
1——Agree	1——	
2——Uncertain	2——	
3——Disagree	3——	
4——Strongly Disagree	4——	

Your Response	Parents Responses	
C20	C44	
0 ___ Strongly Agree	0 ___	15. Sound vocational education is the foundation of a healthy economy.
1 ___ Agree	1 ___	
2 ___ Uncertain	2 ___	
3 ___ Disagree	3 ___	
4 ___ Strongly Disagree	4 ___	
C21	C45	
0 ___ Strongly Agree	0 ___	16. Vocational education limits a student's exposure to other occupational choices.
1 ___ Agree	1 ___	
2 ___ Uncertain	2 ___	
3 ___ Disagree	3 ___	
4 ___ Strongly Disagree	4 ___	
C22	C46	
0 ___ Strongly Agree	0 ___	17. Vocational education should be emphasized only for students who can't succeed in an academic situation.
1 ___ Agree	1 ___	
2 ___ Uncertain	2 ___	
3 ___ Disagree	3 ___	
4 ___ Strongly Disagree	4 ___	
C23	C47	
0 ___ Strongly Agree	0 ___	18. Academic education programs are more valuable than vocational education programs.
1 ___ Agree	1 ___	
2 ___ Uncertain	2 ___	
3 ___ Disagree	3 ___	
4 ___ Strongly Disagree	4 ___	
C24	C48	
0 ___ Strongly Agree	0 ___	19. Vocational education should be offered as a continuing program from grades kindergarten through twelve.
1 ___ Agree	1 ___	
2 ___ Uncertain	2 ___	
3 ___ Disagree	3 ___	
4 ___ Strongly Disagree	4 ___	
C25	C49	
0 ___ Strongly Agree	0 ___	20. Parents need to overcome the notion that vocational education is a second-class education.
1 ___ Agree	1 ___	
2 ___ Uncertain	2 ___	
3 ___ Disagree	3 ___	
4 ___ Strongly Disagree	4 ___	
C26	C50	
0 ___ Strongly Agree	0 ___	21. Some vocational education courses should be required for high school graduation.
1 ___ Agree	1 ___	
2 ___ Uncertain	2 ___	
3 ___ Disagree	3 ___	
4 ___ Strongly Disagree	4 ___	
C27	C51	
0 ___ Strongly Agree	0 ___	22. More information is needed to inform parents and students of the opportunities and benefits of vocational education.
1 ___ Agree	1 ___	
2 ___ Uncertain	2 ___	
3 ___ Disagree	3 ___	
4 ___ Strongly Disagree	4 ___	
C28	C52	
0 ___ Strongly Agree	0 ___	23. Vocational education costs too much money.
1 ___ Agree	1 ___	
2 ___ Uncertain	2 ___	
3 ___ Disagree	3 ___	
4 ___ Strongly Disagree	4 ___	

Your Response	Parents Responses	
C29	C53	
0 —— Strongly Agree	0 ——	24. Vocational education courses and academic courses should be integrated into a common curriculum.
1 —— Agree	1 ——	
2 —— Uncertain	2 ——	
3 —— Disagree	3 ——	
4 —— Strongly Disagree	4 ——	

PART B

Continue with Part B, filling in the information in the blanks or checking your choice of responses as you did in Part A.

1. Sex
   C54
   1——Male
   5——Female

2. Age:
   C55
   0——20 - 24
   1——25 - 29
   2——30 - 35
   3——36 - 45
   4——over 45

3. Major area of teaching experience: (Check one)
   C56
   0——English
   1——Social Science
   2——Practical Arts
   3——Science
   4——Mathematics
   5——Fine Arts
   6——Physical Education

4. Number of years' teaching experience prior to counseling:
   C57
   0——none
   1——1 - 3 years
   2——4 - 6 years
   3——7 - 10 years
   4——over 10 years

5. Number of years you have been counseling:
   C58
   0——less than 1 year
   1——1 - 3 years
   2——4 - 8 years
   3——9 - 12 years
   4——more than 12 years

6. How much of your time is for counseling?
C59
0——Full time
1——Less than full time; more than half time
2——Half time
3——Less than half time

7. Indicate the vocational education background you have.
C60
0——None
1——Took high school vocational education--did not work in trade.
2——Took post high school vocational education--did not work in trade.
3——Took high school vocational education--worked in trade.
4——Took post high school vocational education--worked in trade.

8. Indicate the total amount of time you have worked full time in a job other than education.
C61
0——None
1——Less than 1 year
2——1 - 2 years
3——3 - 5 years
4——More than 5 years

9. Estimate the total number of students assigned to you as counselees last year.

______
C 62 63 64

10. How are counselees assigned to you?
C65
0——Random choice
1——Random, by grade
2——By sex
3——By alphabetical order
4——Other ________________________________
____

11. Estimate the number of students you counseled last year who took vocational education.

______
C 66 67 68

12. Your counselees taking a vocational education course would normally:
C69
0——go to a comprehensive high school.
1——go to an area vocational school.
2——be able to choose either an area vocational school or a comprehensive high school.
3——other. ________________________________
____

13. The majority of students counseled into vocational programs would probably be in the grade range of:
C70
0——A - B
1——B - C.
2——C - D.
3——D - F.
4——equally distributed over the whole range.

14. How are students informed about vocational education?

____

C71

15. At what grade level are students informed about vocational education?

____

C72

16. Who do you feel has the most influence on the student's career decisions?
C73
0——Parents
1——Peers
2——Counselors
3——Teachers
4——Other members of the family
5——Others: ________________________
____

17. How would you best describe your feelings about vocational education as offered at the high school level?
C74
0——A worthwhile program that would benefit most students.
1——Most beneficial for lower ability students.
2——The program is not worth all the expense.
3——Vocational education should be offered at the post high school level rather than at the high school level.
4——Other: ________________________
____
____
____

18. How often in the past year have you had the opportunity to visit a local industry?
C75
0——None
1——Once or twice
2——Occasionally
3——Fairly often
4——Whenever I have the opportunity

19. Has any member of your family ever taken a vocational education course?
C76
1——Yes
5——No

20. Check the one response that most closely matches your experience with vocational education as a counselor.
C77
0——Have visited the vocational education classes in the school.
1——Have spent some time observing the vocational education classes in the school.
2——Have looked into the various vocational education programs to see what is taught and how.
3——Have not been able to visit the vocational education classrooms.
4——Other (explain): ________________________
____
____
____

PACKET INSTRUCTIONS

VPTVE PACKET

A. Inside you will find:

1. Parent or Guardian Information card
2. Student Questionnaire
3. Parent or Guardian Questionnaire (small envelope)

B. Instructions:

1. Fill out the Parent or Guardian Information Card and return to person conducting survey before you answer the Questionnaire.
2. Fill out the Questionnaire.
3. Put completed Student Questionnaire only in this envelope; seal and return to person conducting survey.
4. Take the Parent or Guardian Questionnair home and have it completed.
5. Have Parent or Guardian place completed Questionnaire in envelope and seal.
6. Return your Parent or Guardian Questionnaire to person conducting survey tomorrow. (Parent or Guardian may prefer to mail responses)

PARENT INFORMATION CARD

Parent or Guardian Information Card

1. Fill out information on this card.
2. Turn in to person conducting survey before starting Questionnaire.

Parent or Guardian Name ____________________

Address ____________________
Street City Zip

Phone Number ____________________

PARENT FOLLOW UP

Dear Parent:

A few days ago your son or daughter filled out a questionnaire relating to the varying perceptions toward vocational education. He or she was also asked to take a questionnaire home for you to complete. As we have not received it yet, we were wondering if it could have been mislaid, or perhaps you just haven't had time to complete it. We are enclosing a second copy should something have happened to the other.

Please note the letter from Dr. Calvin Frazier, Colorado Commissioner of Education, and the letter of explanation inside the front cover of the questionnaire. These will point out the purpose and importance of this study. If you have returned the earlier copy, thank you for your time and effort. If not, would you complete this one and drop it in the mail. It should only take about 10 minutes, and it is most important to receive replies from all parents. You may be sure that all information is completely confidential and that your name will not be used at any time in any way.

Sincerely yours,

James E Brown
James E. Brown

Gary M Clark
Gary M. Clark

fc

enclosures

Dear Parent:

Some time back you were asked to fill out a questionnaire on the varying perceptions toward vocational education. As we have no record of receiving it, would you take a minute to check the response on this card indicating why we did not receive it. Thank you.

____ Sent it back.
____ Did not have time.
____ Did not consider it important.
____ Mislaid it before it could be done.

____ Other ______________________________
(please specify)

____ Check here if you would like another copy sent to you.

……

Brown-Clark
2450 Lafayette Road
Colorado Springs, CO 80907

James Brown-Gary Clark
2450 Lafayette Road
Colorado Springs, CO 80907

……

Brown-Clark
2450 Lafayette Road
Colorado Springs, CO 80907

APPENDIX C

CORRESPONDENCE WITH DR. CALVIN M. FRAZIER, COMMISSIONER COLORADO DEPARTMENT OF EDUCATION

2450 Lafayette Road
Colorado Springs, CO 80907
June 13, 1975

Dr. Calvin M. Frazier
Colorado Department of Education
Sherman and Colfax
Denver, CO 80203

Dear Dr. Frazier:

After considering various possible studies you suggested to us April 26 at the CIAA Convention, the following problem is one that particularly interested us:

> "Influencing factors which would determine the probability of a secondary student entering into a vocational training program."

If you feel this is a worthwhile study, we would appreciate a letter from you recommending that we be allowed to do a cooperative study as previously discussed.

Please address the letter to "Walden University--To Whom It May Concern," and send the original and a copy to us so we can hand carry it to Walden University.

Thank you.

Sincerely,

James E Brown
James E. Brown

Gary M Clark
Gary M. Clark

COLORADO DEPARTMENT OF EDUCATION
State Office Building, 201 E. Colfax
Denver, Colorado 80203
Telephone (303) 892-2212
Calvin M. Frazier, *Commissioner*

July 7, 1975

Walden University
Palm Beach, Florida

TO WHOM IT MAY CONCERN:

Several weeks ago I had an opportunity to meet with Jim Brown and Gary Clark in regard to a study topic for them to pursue in their graduate work. We explored several possibilities and I am pleased that they have chosen to explore the following topic:

> "Influencing factors which would determine the probability of a secondary student entering into a vocational training program."

I am particularly interested in this topic because of its relationship to our broader career education - vocational education cooperative effort here in Colorado. As we work to develop greater exploratory efforts in the early secondary years, the transition into a more specific training program becomes very critical. The study by Mr. Brown and Mr. Clark should make a real contribution to the state beyond the mere fulfillment of a graduate requirement.

Sincerely,

Calvin M. Frazier

Calvin M. Frazier
Commissioner of Education

CMF:rr

cde

COLORADO DEPARTMENT OF EDUCATION
State Office Building, 201 E. Colfax
Denver, Colorado 80203
Telephone (303) 892-2212
Calvin M. Frazier, *Commissioner*

216

James E. Brown
Gary Clark
2450 Lafayette Road
Colorado Springs, CO 80907

Dear Jim and Gary:

It was good to hear of your progress in conducting your study. I would submit the following as something you would be authorized to use in sending out your questionnaire. If this is appropriate, I would suggest that you go ahead, type this up, and type in my name without a signature at this point just to expedite the mailing.

> Dear ___________:
>
> I would like to call your attention to this particular study. Mr. Brown and Mr. Clark have endeavored to investigate a statewide concern that has frequently surfaced as we have engaged in many recent career education and vocational education discussions.
>
> As you will note, in their questionnaire they are trying to get at the concerns and perceptions existing as students contemplate enrollment in vocational education offerings. If we are to improve our career exploratory efforts and our general guidance to all students in regard to vocational education offerings, your help is most important in helping educators define such feelings. Because of the interest in this study, we will endeavor to circulate broadly the results of the study.
>
> Sincerely,
> Calvin M. Frazier
> Commissioner of Education

Does this achieve your intent? Hope so. Best wishes.

Sincerely,

Cal

Calvin M. Frazier
Commissioner of Education

APPENDIX D

LETTERS OF CONFIRMATION AND AUTHORIZATION

Market
Data
Retrieval

800 BOSTON POST RD
WESTPORT, CT. 06880
203-226-7511

February 10, 1976

Mr. James Brown &
Mr. Gary Clark
2450 Lafayette Road
Colorado Springs, CO 80907

Dear Messr. Brown and Clark:

I hereby grant permission to use portions of the Guide to Vocational Education in America in your attitudinal survey. Could you kindly send one copy of it upon completion. I welcome any opportunity to share points of view in this matter.

I wish you success in your commendable endeavor, and look forward to seeing your study.

Sincerely,

Jonathan Hoffman

Jonathan Hoffman
Senior Research Analyst

JH:CEL

The Education Data Bank

COLORADO
STATE
UNIVERSITY
FORT COLLINS
COLORADO
80523

department of vocational education

September 10, 1975

Mr. James E. Brown
Roy J. Wasson High School
2115 Afton Way
Colorado Springs, CO 80909

Dear Mr. Brown:

Thank you for your letter of September 3, 1975. This is to confirm and authorize you of the parts or total instruments we sent you at an earier date. The only request I have is that you give appropriate credit in any published documents to materials utilized from my instrumentation. If you have additional questions, please feel free to contact me.

Sincerely yours,

Ivan E. Valentine

Ivan E. Valentine
Professor
Vocational Education

IEV/cim

APPENDIX E

CORRESPONDENCE WITH SCHOOL DISTRICTS SURVEYED

SCHOOL DISTRICT NUMBER ELEVEN

October 23, 1975

Mr. Thomas B. Doherty, Superintendent
Colorado Springs School District Number 11
1115 El Paso Street
Colorado Springs, Colorado 80903

Dear Mr. Doherty:

We are conducting a study to help identify and compare the varying perceptions toward vocational education of students, their parents, and their counselors.

Recent government publications have indicated that as many as two and a half million students in this country will graduate each year with no marketable skill. This study will attempt to isolate the perceptions and influences that relate to a student's decision to enroll in a vocational education course.

The findings should be useful in the following ways:

1. To help in evaluating the pre-vocational programs now offered
2. To help in formulating plans for pre-vocational programs for the future
3. To help in evaluating the need for and content of informational programs for students and parents
4. To help in evaluating counselor effectiveness in counseling students concerning vocational education

The study is to be conducted in six metropolitan areas of Colorado. Your district was chosen because of its location and the vocational education programs run in the district. As you can see from the enclosed letter, Dr. Frazier, Colorado Commissioner of Education, feels that this study can provide needed information for use throughout the state. To successfully complete this study, we need and would appreciate your cooperation.

There will be three questionnaires used to obtain the information needed. One is to be completed by counselors; a second is to be completed by parents of the students; and a third to be completed by the vocational students in the schools, with an equal number going to non-vocational students, if the school is a comprehensive high school. Should the vocational students be from an area vocational school, the non-vocational students will need to be from the home school the vocational students would have attended.

The student questionnaire should take no more than 20 minutes to complete. The parents questionnaires would be given to the students to take home.

We would appreciate your allowing us to administer the questionnaires in your district. To do this, we would need to have you select a comprehensive high school offering vocational education, or an area vocational school and the feeder or home school those students would attend if not enrolled in the area vocational school. If you would send us the principal's name and address, we can then contact him to make arrangements for administration of the questionnaires. Should you need more information, please feel free to contact us.

Since the time element is quite important for the completion of this study, it would be most beneficial for us to be able to give the questionnaires during the month of November.

We are hopeful that our goal to develop a worthwhile guide to be circulated to school can be accomplished. Thank you for your help in our project.

Sincerely yours,

James E Brown

James E. Brown
2450 Lafayette Road
Colorado Springs, Colorado 80907
Home phone: 635-2946
Wasson phone: 473-8800 ex. 68

Gary M Clark

Gary M. Clark
1721 Bula Drive
Colorado Springs, Colorado 80915
Home phone: 596-0470
Wasson phone: 473-8800 ex. 54

encl: Letter from Dr. Calvin M. Frazier
Colorado Commissioner of Education

cde

COLORADO DEPARTMENT OF EDUCATION
State Office Building, 201 E. Colfax
Denver, Colorado 80203
Telephone (303) 892-2212
Calvin M. Frazier, *Commissioner*

October 23, 1975

Mr. Thomas B. Doherty, Superintendent
Colorado Springs School District Number 11
1115 El Paso Street
Colorado Springs, Colorado 80903

Dear Mr. Doherty:

I would like to call your attention to this particular study. Mr. Brown and Mr. Clark have endeavored to investigate a statewide concern that has frequently surfaced as we have engaged in many recent career education and vocational education discussions.

As you will note, in their questionnaire they are trying to get at the concerns and perceptions existing as students contemplate enrollment in vocational education offerings. If we are to improve our career exploratory efforts and our general guidance to all students in regard to vocational education offerings, your help is most important in helping educators define such feelings. Because of the interest in this study, we will endeavor to circulate broadly the results of the study.

Sincerely,
Calvin M. Frazier
Commissioner of Education

COLORADO SPRINGS PUBLIC SCHOOLS
EL PASO COUNTY SCHOOL DISTRICT NO. 11
THOMAS B. DOHERTY, Superintendent

• DIVISION OF INSTRUCTIONAL SERVICES
GEORGE H. DALGLEISH, Assistant Superintendent

COLORADO SPRINGS, COLORADO
(303) 633-8773
80903

November 1, 1975

Mr. James E. Brown
Mr. Gary M. Clark
2450 Lafayette Road
Colorado Springs, Colorado 80907

Dear Messrs. Brown and Clark,

Our School District will cooperate in your study to identify and compare varying perceptions toward vocational education of students, their parents, and their counselors.

We would appreciate having the results of the study after it is completed.

Sincerely,

George H. Dalgleish

George H. Dalgleish
Assistant Superintendent
Instructional Services

GHD:cf

Administrative Assistants
ROBERT L. CARD
LEE F. HIGGINS
WILLIAM LIDDLE
K. PATRICK MURPHY

SCHOOL DISTRICT NUMBER SIXTY

October 24, 1975

Dr. Robert Freeman, Superintendent
Pueblo City School District Number 60
P. O. Box 3038
102 West Orman Avenue
Pueblo, CO 81004

Dear Dr. Freeman:

We are conducting a study to help identify and compare the varying perceptions toward vocational education of students, their parents, and their counselors.

Recent government publications have indicated that as many as two and a half million students in this country will graduate each year with no marketable skill. This study will attempt to isolate the perceptions and influences that relate to a student's decision to enroll in a vocational education course.

The findings should be useful in the following ways:

1. To help in evaluating the pre-vocational programs now offered
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3. To help in evaluating the need for and content of informational programs for students and parents
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The study is to be conducted in six metropolitan areas of Colorado. Your district was chosen because of its location and the vocational education programs run in the district. As you can see from the enclosed letter, Dr. Frazier, Colorado Commissioner of Education, feels that this study can provide needed information for use throughout the state. To successfully complete this study, we need and would appreciate your cooperation.

There will be three questionnaires used to obtain the information needed. One is to be completed by counselors; a second is to be completed by parents of the students; and a third to be completed by the vocational students in the schools, with an equal number going to non-vocational students, if the school is a comprehensive high school. Should the vocational students be from an area vocational school, the non-vocational students will need to be from the home school the vocational students would have attended.

The student questionnaire should take no more than 20 minutes to complete. The parents questionnaires would be given to the students to take home.

We would appreciate your allowing us to administer the questionnaires in your district. To do this, we would need to have you select a comprehensive high school offering vocational education, or an area vocational school and the feeder or home school those students would attend if not enrolled in the area vocational school. If you would send us the principal's name and address, we can then contact him to make arrangements for administration of the questionnaires. Should you need more information, please feel free to contact us.

Since the time element is quite important for the completion of this study, it would be most beneficial for us to be able to give the questionnaires during the month of November.

We are hopeful that our goal to develop a worthwhile guide to be circulated to schools can be accomplished. Thank you for your help in our project.

Sincerely yours,

James E Brown

James E. Brown
2450 Lafayette Road
Colorado Springs, CO 80907
Home phone: 635-2946
Wasson High phone: 473-8800
ext. 68

Gary M Clark

Gary M. Clark
1721 Bula Drive
Colorado Springs, CO 80915
Home phone: 596-0470
Wasson High phone: 473-8800
ext. 54

fc

enc: Letter from Dr. Calvin M. Frazier,
Colorado Commissioner of Education

cde

COLORADO DEPARTMENT OF EDUCATION
State Office Building, 201 E. Colfax
Denver, Colorado 80203
Telephone (303) 892-2212
Calvin M. Frazier, *Commissioner*

October 23, 1975

Dr. Robert Freemen, Superintendent
Pueblo City School District Number 60
P. O. Box 3038
102 West Orman Avenue
Pueblo, Colorado 81004

Dear Dr. Freeman:

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As you will note, in their questionnaire they are trying to get at the concerns and perceptions existing as students contemplate enrollment in vocational education offerings. If we are to improve our career exploratory efforts and our general guidance to all students in regard to vocational education offerings, your help is most important in helping educators define such feelings. Because of the interest in this study, we will endeavor to circulate broadly the results of the study.

Sincerely,
Calvin M. Frazier
Commissioner of Education

SCHOOL DISTRICT NO. 60
IN THE COUNTY OF PUEBLO AND STATE OF COLORADO
ADMINISTRATION BUILDING, 102 W. ORMAN AVE.
PUEBLO, COLORADO 81004

ROBERT R. FREEMAN, SUPERINTENDENT

November 4, 1975

Mr. James E. Brown
2450 Lafayette Road
Colo. Springs, CO 80907

Dear Mr. Brown,

We will cooperate in your study.

Please contact Mr. Curtis Phillips, Vocational Education Director in the Pueblo Public Schools, and make arrangements with him for further activities.

Sincerely yours,

Robert R. Freeman
Superintendent

RRF:bjc
cc. C. Phillips

SCHOOL DISTRICT NUMBER FIFTY-ONE

October 24, 1975

Dr. Donald L. Oglesby, Superintendent
Mesa County Valley School District Number 51
2115 Grand Avenue
Grand Junction, CO 81501

Dear Dr. Oglesby:

We are conducting a study to help identify and compare the varying perceptions toward vocational education of students, their parents, and their counselors.

Recent government publications have indicated that as many as two and a half million students in this country will graduate each year with no marketable skill. This study will attempt to isolate the perceptions and influences that relate to a student's decision to enroll in a vocational education course.

The findings should be useful in the following ways:

1. To help in evaluating the pre-vocational programs now offered
2. To help in formulating plans for pre-vocational programs for the future
3. To help in evaluating the need for and content of informational programs for students and parents
4. To help in evaluating counselor effectiveness in counseling students concerning vocational education

The study is to be conducted in six metropolitan areas of Colorado. Your district was chosen because of its location and the vocational education programs run in the district. As you can see from the enclosed letter, Dr. Frazier, Colorado Commissioner of Education, feels that this study can provide needed information for use throughout the state. To successfully complete this study, we need and would appreciate your cooperation.

There will be three questionnaires used to obtain the information needed. One is to be completed by counselors; a second is to be completed by parents of the students; and a third to be completed by the vocational students in the schools, with an equal number going to non-vocational students, if the school is a comprehensive high school. Should the vocational students be from an area vocational school, the non-vocational students will need to be from the home school the vocational students would have attended.

The student questionnaire should take no more than 20 minutes to complete. The parents questionnaires would be given to the students to take home.

We would appreciate your allowing us to administer the questionnaires in your district. To do this, we would need to have you select a comprehensive high school offering vocational education, or an area vocational school and the feeder or home school those students would attend if not enrolled in the area vocational school. If you would send us the principal's name and address, we can then contact him to make arrangements for administration of the questionnaires. Should you need more information, please feel free to contact us.

Since the time element is quite important for the completion of this study, it would be most beneficial for us to be able to give the questionnaires during the month of November.

We are hopeful that our goal to develop a worthwhile guide to be circulated to schools can be accomplished. Thank you for your help in our project.

Sincerely yours,

James E Brown

James E. Brown
2450 Lafayette Road
Colorado Springs, CO 80907
Home phone: 635-2946
Wasson High phone: 473-8800
ext. 68

Gary M Clark

Gary M. Clark.
1721 Bula Drive
Colorado Springs, CO 80915
Home phone: 596-0470
Wasson High phone: 473-880
ext. 5

fc

enc: Letter from Dr. Calvin M. Frazier,
Colorado Commissioner of Education

cde

COLORADO DEPARTMENT OF EDUCATION
State Office Building, 201 E. Colfax
Denver, Colorado 80203
Telephone (303) 892-2212
Calvin M. Frazier, *Commissioner*

October 23, 1975

Dr. Donald L. Oglesby, Superintendent
Mesa Co. Valley School District Number 51
2115 Grand Avenue
Grand Junction, Colorado 81501

Dear Dr. Oglesby:

I would like to call your attention to this particular study. Mr. Brown and Mr. Clark have endeavored to investigate a statewide concern that has frequently surfaced as we have engaged in many recent career education and vocational education discussions.

As you will note, in their questionnaire they are trying to get at the concerns and perceptions existing as students contemplate enrollment in vocational education offerings. If we are to improve our career exploratory efforts and our general guidance to all students in regard to vocational education offerings, your help is most important in helping educators define such feelings. Because of the interest in this study, we will endeavor to circulate broadly the results of the study.

Sincerely,
Calvin M. Frazier
Commissioner of Education

MESA COUNTY VALLEY SCHOOL DISTRICT NUMBER 51
ADMINISTRATIVE SERVICE CENTER
2115 GRAND AVENUE
GRAND JUNCTION, COLORADO 81501

ANTON E. CHRISTOFF, ED. D.
DIRECTOR OF SECONDARY EDUCATION

PHONE 243-2433, EXT. 67

November 6, 1975

James E. Brown
2450 Lafayette Road
Colorado Springs, Colorado 80907

Dear Mr. Brown:

Your letter to Dr. Oglesby, Superintendent of Schools, regarding the conducting of a study to help identify and compare varying perceptions towards vocational education of students has been referred to me. I would like to recommend that you contact Mr. Gene McConnell, Principal of Grand Junction High School, regarding the administration of the questionnaires. The address of Grand Junction High School is 1400 North 5th Street, Grand Junction, Colorado 81501.

If I can be of further assistance to you in conducting this study, please feel free to call upon me.

Sincerely yours,

Anton E. Christoff

ANTON E. CHRISTOFF, Ed. D.
Director of Secondary Education

AEC:lc

cc: Gene McConnell

SCHOOL DISTRICT NUMBER SIX

October 24, 1975

Mr. Kenneth P. Schoonover, Superintendent
Littleton School District Number 6
6558 South Acoma Street
Littleton, CO 80120

Dear Mr. Schoonover:

We are conducting a study to help identify and compare the varying perceptions toward vocational education of students, their parents, and their counselors.

Recent government publications have indicated that as many as two and a half million students in this country will graduate each year with no marketable skill. This study will attempt to isolate the perceptions and influences that relate to a student's decision to enroll in a vocational education course.

The findings should be useful in the following ways:

1. To help in evaluating the pre-vocational programs now offered
2. To help in formulating plans for pre-vocational programs for the future
3. To help in evaluating the need for and content of informational programs for students and parents
4. To help in evaluating counselor effectiveness in counseling students concerning vocational education

The study is to be conducted in six metropolitan areas of Colorado. Your district was chosen because of its location and the vocational education programs run in the district. As you can see from the enclosed letter, Dr. Frazier, Colorado Commissioner of Education, feels that this study can provide needed information for use throughout the state. To successfully complete this study, we need and would appreciate your cooperation.

There will be three questionnaires used to obtain the information needed. One is to be completed by counselors; a second is to be completed by parents of the students; and a third to be completed by the vocational students in the schools, with an equal number going to non-vocational students, if the school is a comprehensive high school. Should the vocational students be from an area vocational school, the non-vocational students will need to be from the home school the vocational students would have attended.

The student questionnaire should take no more than 20 minutes to complete. The parents questionnaires would be given to the students to take home.

We would appreciate your allowing us to administer the questionnaires in your district. To do this, we would need to have you select a comprehensive high school offering vocational education, or an area vocational school and the feeder or home school those students would attend if not enrolled in the area vocational school. If you would send us the principal's name and address, we can then contact him to make arrangements for administration of the questionnaires. Should you need more information, please feel free to contact us.

Since the time element is quite important for the completion of this study, it would be most beneficial for us to be able to give the questionnaires during the month of November.

We are hopeful that our goal to develop a worthwhile guide to be circulated to schools can be accomplished. Thank you for your help in our project.

Sincerely yours,

James E Brown

James E. Brown
2450 Lafayette Road
Colorado Springs, CO 80907
Home phone: 635-2946
Wasson High phone: 473-8800
ext. 68

Gary M Clark

Gary M. Clark
1721 Bula Drive
Colorado Springs, CO 80915
Home phone: 596-0470
Wasson High phone: 473-8800
ext. 54

fc

enc: Letter from Dr. Calvin M. Frazier,
Colorado Commissioner of Education

cde

COLORADO DEPARTMENT OF EDUCATION
State Office Building, 201 E. Colfax
Denver, Colorado 80203
Telephone (303) 892-2212
Calvin M. Frazier, *Commissioner*

October 23, 1975

Mr. Kenneth P. Schoonover, Superintendent
Littleton School District Number 6
6558 South Acoma Street
Littleton, Colorado 80120

Dear Mr. Schoonover:

I would like to call your attention to this particular study. Mr. Brown and Mr. Clark have endeavored to investigate a statewide concern that has frequently surfaced as we have engaged in many recent career education and vocational education discussions.

As you will note, in their questionnaire they are trying to get at the concerns and perceptions existing as students contemplate enrollment in vocational education offerings. If we are to improve our career exploratory efforts and our general guidance to all students in regard to vocational education offerings, your help is most important in helping educators define such feelings. Because of the interest in this study, we will endeavor to circulate broadly the results of the study.

Sincerely,
Calvin M. Frazier
Commissioner of Education

Arapahoe County
SCHOOL DISTRICT SIX
LITTLETON/COLORADO

Office of the Superintendent
administration building
6558 south acoma street
zip code 80120

October 29, 1975

Mr. James E. Brown
2450 Lafayette Road
Colorado Springs, Colo. 80907

Dear Mr. Brown:

In response to your letter of October 24, 1975, in which you described a study which you and Mr. Gary Clark are undertaking, I have asked Mr. Kenneth D. Baker, Assistant Superintendent for Instruction and Dr. Harvey Rothenberg, Director of Adult and Vocational Education, to follow-up with the identification of a feeder school to our Area Vocational School so that questionnaires may be administered. You may expect to hear from Mr. Baker and Dr. Rothenberg in the near future relative to your study.

Needless to say, we would appreciate very much having the results of the study after it is completed. We certainly concur with Dr. Frazier in that the information from a study of this type would serve a most useful purpose in our planning for the future of vocational education.

Very truly yours,

Kenneth P. Schoonover
Superintendent of Schools

gd

cc: Mr. Gary M. Clark
Mr. Kenneth Baker
Dr. Harvey Rothenberg

SCHOOL DISTRICT NUMBER TWO

October 24, 1975

Dr. Bernard D. Ryan, Superintendent
Boulder Valley School District Number RE-2
P. O. Box 11
6500 East Arapahoe Road
Boulder, CO 80302

Dear Dr. Ryan:

We are conducting a study to help identify and compare the varying perceptions toward vocational education of students, their parents, and their counselors.

Recent government publications have indicated that as many as two and a half million students in this country will graduate each year with no marketable skill. This study will attempt to isolate the perceptions and influences that relate to a student's decision to enroll in a vocational education course.

The findings should be useful in the following ways:

1. To help in evaluating the pre-vocational programs now offered
2. To help in formulating plans for pre-vocational programs for the future
3. To help in evaluating the need for and content of informational programs for students and parents
4. To help in evaluating counselor effectiveness in counseling students concerning vocational education

The study is to be conducted in six metropolitan areas of Colorado. Your district was chosen because of its location and the vocational education programs run in the district. As you can see from the enclosed letter Dr. Frazier, Colorado Commissioner of Education, feels that this study can provide needed information for use throughout the state. To successfully complete this study, we need and would appreciate your cooperation.

There will be three questionnaires used to obtain the information needed. One is to be completed by counselors; a second is to be completed by parents of the students; and a third to be completed by the vocational students in the schools, with an equal number going to non-vocational students, if the school is a comprehensive high school. Should the vocational students be from an area vocational school, the non-vocational students will need to be from the home school the vocational students would have attended.

The student questionnaire should take no more than 20 minutes to complete. The parents questionnaires would be given to the students to take home.

We would appreciate your allowing us to administer the questionnaires in your district. To do this, we would need to have you select a comprehensive high school offering vocational education, or an area vocational school and the feeder or home school those students would attend if not enrolled in the area vocational school. If you would send us the principal's name and address, we can then contact him to make arrangements for administration of the questionnaires. Should you need more information, please feel free to contact us.

Since the time element is quite important for the completion of this study, it would be most beneficial for us to be able to give the questionnaires during the month of November.

We are hopeful that our goal to develop a worthwhile guide to be circulated to schools can be accomplished. Thank you for your help in our project.

Sincerely yours,

James E Brown
James E. Brown
2450 Lafayette Road
Colorado Springs, CO 80907
Home phone: 635-2946
Wasson High phone: 473-8800
ext. 68

Gary M Clark
Gary M. Clark
1721 Bula Drive
Colorado Springs, CO 80915
Home phone: 596-0470
Wasson High phone: 473-8800
ext. 54

fc

enc: Letter from Dr. Calvin M. Frazier,
Colorado Commissioner of Education

cde

COLORADO DEPARTMENT OF EDUCATION
State Office Building, 201 E. Colfax
Denver, Colorado 80203
Telephone (303) 892-2212
Calvin M. Frazier, *Commissioner*

October 23, 1975

Dr. Bernard D. Ryan, Superintendent
Boulder Valley School District Number RE-2
P. O. Box 11
6500 East Arapahoe Road
Boulder, Colorado 80302

Dear Dr. Ryan:

I would like to call your attention to this particular study. Mr. Brown and Mr. Clark have endeavored to investigate a statewide concern that has frequently surfaced as we have engaged in many recent career education and vocational education discussions.

As you will note, in their questionnaire they are trying to get at the concerns and perceptions existing as students contemplate enrollment in vocational education offerings. If we are to improve our career exploratory efforts and our general guidance to all students in regard to vocational education offerings, your help is most important in helping educators define such feelings. Because of the interest in this study, we will endeavor to circulate broadly the results of the study.

Sincerely,
Calvin M. Frazier
Commissioner of Education

BOULDER VALLEY PUBLIC SCHOOLS
DIVISION OF INSTRUCTION
REQUEST TO DO RESEARCH OR STUDY

To be completed by anyone wanting to do a research or study project

BACKGROUND

Date 11-25-75

Name of requestor JAMES E. BROWN & GARY M. CLARK

Address COLORADO SPRINGS

Telephone 635-2946

Agency or institution sponsoring research or study project WALDEN UNIV. FLORIDA

Supervisor of project DR. ROBERT HUBBELL

Signature of supervisor or professor recommending project ______

DESCRIPTION

Title of research or study project IDENTITY AND COMPARISON OF THE VARYING PERCEPTIONS TOWARD VOCATIONAL EDUCATION

Nature of project: (Attach a resume' of the research or study proposal or other brief description.)
Procedure: (Attach a resume' of the research study proposal or other brief description.)
Evaluation and Analysis of results; techniques to be used: (Attach resume' or other brief description.)
Estimated additional time required of our students: 30 MIN. - 250 STUDENTS
teachers: ______ other, specify: COUNSELORS - 30 MIN

Estimated cost to the District: NONE

Estimated date of beginning of District involvement: DECEMBER 11, 1975

Estimated date of conclusion of District involvement: DECEMBER 11, 1975

Estimated date results will become available to the District: MARCH 1, 1976

AGREEMENT

If granted permission to conduct this research or study, in the Boulder Valley School District I agree to the following conditions:

1. Persons and places used in the project will remain anonymous except by prior approval.
2. A report of the evaluation and/or finding will be made to the District at the conclusion of the project.
3. Release of the results to the District shall be through the Assistant Superintendent.
4. Any significant modification of the approved plan will be submitted to the Assistant Superintendent.

James E. Brown Gary M. Clark
Signature of Requestor

The completed request and any questions should be addressed to the Assistant Superintendent of the Boulder Valley Public Schools, Box 11, Boulder, Colorado 80302. Phone 447-1010, extension 300

Usually it takes ten days to two weeks to process this request.

BOULDER VALLEY PUBLIC SCHOOLS
Barnard D. "Pat" Ryan, Superintendent
P.O. BOX 11
BOULDER, COLORADO 80302
(303) 447-1010

EUGENE R. GULLETTE
Assistant Superintendent

In NOVEMBER 1975 you submitted a "Request to do Research or Study" in the Boulder Valley Public Schools on the following subject:

"IDENTITY AND COMPARISON OF THE VARYING PERCEPTIONS TOWARD VOCATIONAL EDUCATION"

Your request was approved and as you will recall, one of the requirements for doing this study in the public schools was that a conclusion of the findings would be submitted to this office. To date, we have not received this information. Will you please send a copy of your report to this office as soon as possible or let us know the disposition of your research or study if it were not completed.

Your cooperation in this matter will be appreciated.

Sincerely yours,

Eugene R. Gullette
Assistant Superintendent

cc: School of __________
University of Colorado

SCHOOL DISTRICT NUMBER THREE

November 20, 1975

Dr. Ben A. Kammer, Superintendent
Fort Morgan School District RE-3
230 Walnut Street
Fort Morgan, CO 80701

Dear Dr. Kammer:

We are conducting a study to help identify and compare the varying perceptions toward vocational education of students, their parents, and their counselors.

Recent government publications have indicated that as many as two and a half million students in this country will graduate each year with no marketable skill. This study will attempt to isolate the perceptions and influences that relate to a student's decision to enroll in a vocational education course.

The findings should be useful in the following ways:

1. To help in evaluating the pre-vocational programs now offered
2. To help in formulating plans for pre-vocational programs for the future
3. To help in evaluating the need for and content of informational programs for students and parents
4. To help in evaluating counselor effectiveness in counseling students concerning vocational education

The study is to be conducted in six metropolitan areas of Colorado. Your district was chosen because of its location and the vocational education programs run in the district. As you can see from the enclosed letter, Dr. Frazier, Colorado Commissioner of Education, feels that this study can provide needed information for use throughout the state. To successfully complete this study, we need and would appreciate your cooperation.

There will be three questionnaires used to obtain the information needed. One is to be completed by counselors; a second is to be completed by parents of the students; and a third to be completed by the vocational students in the schools, with an equal number going to non-vocational students, if the school is a comprehensive high school. Should the vocational students be from an area vocational school, the non-vocational students will need to be from the home school the vocational students would have attended.

The student questionnaire should take no more than 20 minutes to complete. The parents questionnaires would be given to the students to take home.

We would appreciate your allowing us to administer the questionnaires in your district. To do this, we would need to have you select a comprehensive high school offering vocational education, or an area vocational school and the feeder or home school those students would attend if not enrolled in the area vocational school. If you would send us the principal's name and address, we can then contact him to make arrangements for administration of the questionnaires. Should you need more information, please feel free to contact us.

Since the time element is quite important for the completion of this study, it would be most beneficial for us to be able to give the questionnaires during the first week of December.

We are hopeful that our goal to develop a worthwhile guide to be circulated to schools can be accomplished. Thank you for your help in our project.

Sincerely yours,

James E Brown

James E. Brown
2450 Lafayette Road
Colorado Springs, CO 80907
Home phone: 635-2946
Wasson High phone: 473-8800
ext. 68

Gary M Clark

Gary M. Clark
1721 Bula Drive
Colorado Springs, CO 80915
Home phone: 596-0470
Wasson High phone: 473-8800
ext. 54

fc

enclosure: Letter from Dr. Calvin M. Frazier
Colorado Commissioner of Education

cde

COLORADO DEPARTMENT OF EDUCATION
State Office Building, 201 E. Colfax
Denver, Colorado 80203
Telephone (303) 892-2212
Calvin M. Frazier, *Commissioner*

November 20, 1975

Dr. Ben A. Kammer, Superintendent
Fort Morgan School District RE-3
230 Walnut Street
Fort Morgan, CO 80701

Dear Dr. Kammer:

I would like to call your attention to this particular study. Mr. Brown and Mr. Clark have endeavored to investigate a statewide concern that has frequently surfaced as we have engaged in many recent career education and vocational education discussions.

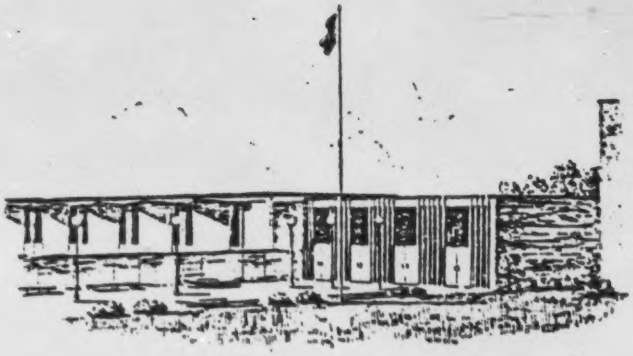
As you will note, in their questionnaire they are trying to get at the concerns and perceptions existing as students contemplate enrollment in vocational education offerings. If we are to improve our career exploratory efforts and our general guidance to all students in regard to vocational education offerings, your help is most important in helping educators define such feelings. Because of the interest in this study, we will endeavor to circulate broadly the results of the study.

Sincerely,
Calvin M. Frazier
Commissioner of Education

Fort Morgan High School

709 East Riverview Ave.
Fort Morgan, Colorado 80701

Robert E. Lucas, Principal
Richard K. Porter, Assistant Principal



FORT MORGAN HIGH SCHOOL

December 11, 1975

Mr. James E. Brown
2450 Lafayette Road
Colorado Springs, Colorado 80907

Dear Jim:

It was good having the opportunity to visit with you this morning and of course we are glad to have the opportunity to assist you with the survey.

I believe the students that were made available in the English classes should give you a good sampling of the academic student, and certainly the students that were contacted at Morgan Community College would represent the vocational type student.

Glad to help coordinate the survey and will look forward to the results received from it.

Sincerely,

Richard K. Porter

Richard K. Porter
Assistant Principal

RKP/j

APPENDIX F

OCCUPATIONAL CATEGORIES

OCCUPATIONAL CATEGORIES

The following occupational categories used in this research are from an instrument of occupational aspirations by Dr. Ivan E. Valentine

A. Agricultural
    1. Production Agriculture
    2. Horticulture
    3. Agricultural Sales and Supplies
    4. Agricultural Service
    5. Agricultural Mechanics
    6. Agricultural Processing
    7. Forestry
    8. Rural Recreation
    9. Agricultural Education

B. Business and Office
    1. Secretary
    2. Stenographer
    3. Typist
    4. Receptionist
    5. Bookkeeper
    6. Date Processing
    7. Cashier
    8. Office Machine Operators
    9. Telephone Operator

C. Distributive
    1. Hotel and Motel
    2. Department Store

   3. Super Market
   4. Wholesale Business
   5. Service Station
   6. Variety Store
   7. Restaurant

D. Health
   1. Dental
   2. Medical

E. Home Economics
   1. Child Development
   2. Food Preparation and Management
   3. Clothing, Textiles, and Home Furnishings Services
   4. Home Management and Institutional Services
   5. Home Furnishings or Decoration

F. Technical
   1. Aero-Space Technology
   2. Manufacturing Technology
   3. Mechanical Technology
   4. Scientific Data Processing Technology
   5. Chemical Technician
   6. Civil Technology
   7. Photography Technology
   8. Electrical-Electronics
   9. Public Service Technology
   10. Miscellaneous Technical Programs

G. Trade and Industrial
   1. Auto Mechanics
   2. Auto Body
   3. Metal Working
   4. Building Trades
   5. Air Conditioning
   6. Fabric Maintenance Service
   7. Personal Services
   8. Plastic Occupations
   9. Quantity Food Occupation
   10. Small Engine Repair
   11. Aviation Occupation
   12. Graphic Arts
   13. Heavy Equipment Maintenance or Operator

H. Professional (Including Teaching)
   1. Aero Space
   2. Animal Science
   3. Artist and Related
   4. Business and Finance
   5. Dental
   6. Engineering
   7. Engineering - Science Related
   8. Entertainment - Professional Related
   9. Government Services
   10. Law
   11. Medicine
   12. Mental Health

13. Natural Science
14. College - 4 years
15. Community or Junior College - 2 years
16. Technical Institute - 2 years
17. Area Vocational School
18. Senior High School
19. Junior High School
20. Elementary School
21. Religion
22. Librarian

APPENDIX G

STUDENTS ENROLLED IN TRADES AND INDUSTRY PROGRAMS

TABLE 40

TRADES AND INDUSTRY 44 different programs* 17 area vocational schools	Number of Schools Having Program	Number of Students in State Enrolled	Boulder Valley School District 2 Students Enrolled	Colorado Springs School District 11 Students Enrolled	Mesa County Valley School District 51 Students Enrolled	Fort Morgan School District 3 Students Enrolled	Pueblo School District 60 Students Enrolled	Littleton School District 6 Students Enrolled
Air Conditioning & Refrigeration	7	91					32	
Aircraft Maintenance	1	12						
Appliance Repair	10	153		20				30
Auto Body	39	722	40	3	75	23	32	18
Auto Service	5	244						
Aviation	2	14						
Broadcasting	7	23						
Building Trades	18	352		78			32	
Business Machines Maintenance	2	57						
Carpentry	42	644	52			22		30
Combination Welding	70	1,183	30	2	30		32	18
Commercial Art	12	125		2				
Commercial Photography	1	45						

TABLE 40--(continued)

TRADES AND INDUSTRY 44 different programs* 17 area vocational schools	Number of Schools Having Program	Number of Students in State Enrolled	Boulder Valley School District 2 Students Enrolled	Colorado Springs School District 11 Students Enrolled	Mesa County Valley School District 51 Students Enrolled	Fort Morgan School District 3 Students Enrolled	Pueblo School District 60 Students Enrolled	Littleton School District 6 Students Enrolled
Construction Maintenance Trade	14	197						
Cook/Chef	1	30						
Cosmotology	23	497	48				35	30
Custodial Services	9	37					16	
Diesel Mechanics	1	1						
Drafting	37	570		38	133		20	
Electrical Operations	5	81						
Electricity	2	34						
Electronic Technology	51	921	63	68		14	148	
Fire Science	2	3		2				
Graphic Arts	18	403	60	53			40	
Graphic Communications	4	123			30			
I.C.E.	12	673	90	37	27			

TABLE 40--(continued)

TRADES AND INDUSTRY 44 different programs* 17 area vocational schools	Number of Schools Having Program	Number of Students in State Enrolled	Boulder Valley School District 2 Students Enrolled	Colorado Springs School District 11 Students Enrolled	Mesa County Valley School District 51 Students Enrolled	Fort Morgan School District 3 Students Enrolled	Pueblo School District 60 Students Enrolled	Littleton School District 6 Students Enrolled
Machine Technology	36	535	40	24	30		32	20
Masonary	11	111						
Mechanics	91	2,673	85	111	75	80	64	
Metal Trades, Combined	3	42		24				
Metal Working, Other	2	20					16	
Millwork & Cabinet Making	2	58						
Police Science	10	35		4				
Plastics Occupations	1	20						
Plumbing	2	65						
Radio, T V	1	60						
Sheet Metal	1	31						
Small Engine Repair	22	364					32	30
Survey	8	17						

TABLE 40--(continued)

TRADES AND INDUSTRY 44 different programs* 17 area vocational schools	Number of Schools Having Program	Number of Students in State Enrolled	Boulder Valley School District 2 Students Enrolled	Cclorado Springs School District 11 Students Enrolled	Mesa County Valley School District 51 Students Enrolled	Fort Morgan School District 3 Students Enrolled	Pueblo School District 60 Students Enrolled	Littleton School District 6 Students Enrolled
T-I Miscellaneous	5	153						
Upholstering	2	92						
Woodworking, Other	1	14						

*Very closely related programs are combined to aid in classification

APPENDIX H

SUMMARY OF NULL HYPOTHESES

SUMMARY OF NULL HYPOTHESES

Null Hypotheses	Acceptance of Null Hypotheses	Rejection of Null Hypotheses	Statistic Method Used	Significant Level of Confidence
1. There is no significant difference in attitude toward vocational education between those students taking vocational education and those who do not.		X	t Test	.01
2. There is no significant relationship between the student's decision to enroll in a vocational education course and his/her prior knowledge of vocational education.		X	Chi-square	.01
3. There is no significant relationship between a student's career goals and his/her decision to enroll in a vocational education course.		X	Chi-square	.01
4. There is no significant relationship between the income level of the family and the student's attitude toward vocational education.	X		Correlation	
5. There is no significant relationship between the student's ethnic background and his/her attitude toward vocational education.	X		Analysis of variance	

SUMMARY OF NULL HYPOTHESES

Null Hypotheses	Acceptance of Null Hypotheses	Rejection of Null Hypotheses	Statistic Method Used	Significant Level of Confidence
6. There is no significant difference in the influence of parents, counselors, and peers on the attitude toward vocational education of the vocational student and non-vocational student.		X	Chi-square	.01
7. There is no significant relationship between the parents' attitude toward vocational education and the student's attitude toward vocational education.		X	t Test	.01
8. There is no significant relationship between the parents' knowledge of vocational education and their attitude toward vocational education.		X	Correlation	.01
9. There is no significant relationship between the educational level of the parent and his/her attitude toward vocational education.		X	Correlation	.05
10. There is no significant relationship between the counselor's knowledge of vocational education and his/her attitude toward vocational education.	X		Correlation	

SUMMARY OF NULL HYPOTHESES

	Acceptance of Null Hypotheses	Rejection of Null Hypotheses	Statistic Method Used	Significant Level of Confidence
11. There is no significant relationship between the counselors' work experience outside the academic world and the ratio of counselees enrolled in vocational education.	X		Chi-square	
12. There is no significant difference in the ratio of students enrolled in vocational education courses by those counselors with a favorable attitude toward vocational education and those with an unfavorable attitude toward vocational education.	X		Analysis of variance	
13. There is no significant difference in the parents' attitude toward vocational education and the counselors' perception of the parents' attitude toward vocational education.		X	t Test	.01
14. There is no significant relationship between a student's grades and the counselor's attitude toward enrolling the student in a vocational education course.		X	Analysis of variance	.01

SUMMARY OF NULL HYPOTHESES

Null Hypotheses	Acceptance of Null Hypotheses	Rejection of Null Hypotheses	Statistic Method Used	Significant Level of Confidence
15. There is no significant difference in the attitudes of students, parents, or counselors toward vocational education among the metropolitan areas of Colorado.	X		Analysis of variance	

APPENDIX I

TABLES ASSOCIATED WITH HYPOTHESES NUMBERS EIGHT AND TEN

TABLE 41

FREQUENCIES AND PERCENTAGES OF RESPONSES BY PARENTS TO KNOWLEDGE QUESTIONS

Question	Responses			
	Vocational Parents		Non-vocational Parents	
	Number	Percent	Number	Percent
Do you feel that you have received				
an excessive amount of information concerning the opportunities for vocational education?	21	3.9	4	.8
all the information necessary in making a decision about vocational education opportunities?	83	15.3	68	13.9
some information, but more would have been useful?	275	50.6	172	35.2
very little or no information regarding vocational opportunities?	161	29.7	242	49.6
How often in the past year have you had the opportunity to visit a local industry (not where you work)?				
None	293	54.0	242	49.9
Once or twice	81	14.9	101	20.8
Occasionally	86	15.8	71	14.6
Fairly often	53	9.8	54	11.1
Whenever I have the opportunity	22	4.1	17	3.5
Have you ever attended an orientation program that explained what vocational education programs are and what they offer?				
Yes	146	26.9	87	17.8
No	395	72.7	400	82.0

TABLE 41--(continued)

Question	Vocational Parents Number	Vocational Parents Percent	Non-vocational Parents Number	Non-vocational Parents Percent
Have you ever been in a vocational education classroom?				
Never	264	48.6	242	49.6
Once or twice	137	25.2	119	24.4
Occasionally	80	14.7	84	17.2
Fairly often	38	7.0	30	6.1
Whenever I have the opportunity	20	3.7	11	2.3
How much do you feel you know about what happens in a vocational education course?				
Nothing	55	10.1	72	14.8
A vague idea	177	32.6	200	41.0
Have a fair amount of knowledge	227	41.8	168	34.4
Good knowledge	61	11.2	34	7.0
Very good knowledge	19	3.5	14	2.9

TABLE 42

CORRELATION OF COUNSELORS' MEAN ATTITUDE SCORE WITH MEAN KNOWLEDGE SCORE

Statement	Number	Mean Attitude Score	Standard Deviation	Mean Knowledge Score	Standard Deviation	Coefficient of Correlation	Significance
Indicate the vocational background that you have.	96	3.05	.34	1.79	1.68	.245	.01
How often in the past year have you had an opportunity to visit a local industry?	97	3.05	.34	1.50	1.04	-.069	NS
Check the one response that most closely matches your experience with vocational education as a counselor.	95	3.05	.34	1.42	.93	.0535	NS

APPENDIX J

TABLES CONCERNING RESPONDENTS' PERCEPTIONS AND KNOWLEDGE

TABLE 43

FREQUENCIES AND PERCENTAGES OF STUDENTS, PARENTS, AND COUNSELORS RESPONDING TO THE STATEMENT, "SOUND VOCATIONAL EDUCATION IS THE FOUNDATION OF A HEALTHY ECONOMY."

Response	Groups Responding									
	Vocational Students		Non-vocational Students		Vocational Parents		Non-vocational Parents		Counselors	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Strongly agree	75	11.0	24	4.0	86	15.9	55	11.3	15	15.3
Agree	313	45.9	213	35.5	341	63.1	268	55.1	43	43.9
Undecided	268	39.4	313	52.2	88	16.3	115	23.6	27	27.6
Disagree	23	3.4	48	8.0	22	4.2	46	9.4	11	11.2
Strongly disagree	2	.3	2	.3	3	.6	3	.6	2	2.0
Total	681	100.0	600	100.0	540	100.0	487	100.0	98	100.0

TABLE 44

FREQUENCIES AND PERCENTAGES OF STUDENTS, PARENTS, AND COUNSELORS RESPONDING TO THE STATEMENT, "VOCATIONAL EDUCATION WILL HELP SOLVE PROBLEMS CAUSED BY UNEMPLOYMENT."

Response	Groups Responding									
	Vocational Students		Non-vocational Students		Vocational Parents		Non-vocational Parents		Counselors	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Strongly agree	74	10.9	42	7.0	73	13.5	54	11.1	11	11.2
Agree	317	46.4	252	42.1	299	55.4	238	48.8	42	42.9
Undecided	237	34.8	249	41.6	124	23.0	125	25.6	29	29.6
Disagree	47	6.9	48	8.0	40	7.4	64	13.1	14	14.3
Strongly disagree	7	1.0	8	1.3	4	.7	7	1.4	2	2.0
Total	682	100.0	599	100.0	540	100.0	488	100.0	98	100.0

TABLE 45

FREQUENCIES AND PERCENTAGES OF STUDENTS, PARENTS, AND COUNSELORS RESPONDING TO THE STATEMENT, "IN THE PRESENT JOB MARKET, VOCATIONAL EDUCATION IS BECOMING INCREASINGLY VALUABLE."

Response	Groups Responding									
	Vocational Students		Non-vocational Students		Vocational Parents		Non-vocational Parents		Counselors	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Strongly agree	313	46.2	110	18.3	309	56.9	210	43.1	71	72.4
Agree	331	48.7	343	57.1	223	41.2	240	49.2	25	25.5
Undecided	29	4.3	127	21.1	7	1.3	27	5.5	2	2.1
Disagree	3	.4	20	3.3	1	.2	9	1.8	..	.....
Strongly disagree	3	.4	1	.2	2	.4	2	.4	..	.....
Total	679	100.0	601	100.0	542	100.0	488	100.0	98	100.0

TABLE 46

FREQUENCIES AND PERCENTAGES OF STUDENTS, PARENTS, AND COUNSELORS RESPONDING TO THE STATEMENT, "STUDENTS WHO TAKE VOCATIONAL EDUCATION HAVE A BETTER CHANCE TO FIND EMPLOYMENT THAN STUDENTS WHO GO TO COLLEGE."

Response	Groups Responding									
	Vocational Students		Non-vocational Students		Vocational Parents		Non-vocational Parents		Counselors	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Strongly agree	55	8.1	13	2.2	32	5.9	15	3.1	9	9.2
Agree	199	29.2	94	15.7	159	29.6	104	21.4	32	32.6
Undecided	324	47.4	295	49.2	239	44.4	192	39.4	21	21.4
Disagree	98	14.4	152	25.4	101	18.8	166	34.1	33	33.7
Strongly disagree	6	.9	45	7.5	7	1.3	10	2.0	3	3.1
Total	682	100.0	599	100.0	538	100.0	487	100.0	98	100.0

APPENDIX K

TABLES RELATING TO PERCEPTIONS OF VOCATIONAL EDUCATION

TABLE 47

FREQUENCIES AND PERCENTAGES OF STUDENTS, PARENTS, AND COUNSELORS RESPONDING TO THE STATEMENT, "VOCATIONAL EDUCATION IS BETTER FOR MANY STUDENTS THAN COLLEGE."

Response	Groups Responding									
	Vocational Students		Non-vocational Students		Vocational Parents		Non-vocational Parents		Counselors	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Strongly agree	176	25.8	101	16.9	215	39.6	177	36.3	60	61.3
Agree	312	45.7	284	47.4	276	50.8	251	51.5	31	31.6
Undecided	143	21.0	127	21.2	35	6.4	30	6.1	4	4.1
Disagree	42	6.2	73	12.2	14	2.6	28	5.7	2	2.0
Strongly disagree	9	1.3	14	2.3	3	.6	2	.4	1	1.0
Total	682	100.0	599	100.0	543	100.0	488	100.0	98	100.0

TABLE 48

FREQUENCIES AND PERCENTAGES OF STUDENTS, PARENTS, AND COUNSELORS RESPONDING TO THE STATEMENT, "WORKING WITH ONE'S HANDS IS NOT AS WORTHWHILE AS WORKING WITH ONE'S MIND."

Response	Groups Responding									
	Vocational Students		Non-vocational Students		Vocational Parents		Non-vocational Parents		Counselors	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Strongly agree	22	3.2	22	3.7	8	1.5	8	1.6	...	....
Agree	52	7.6	76	12.6	14	2.6	23	4.7	...	....
Undecided	97	14.2	63	10.5	17	3.1	22	4.5	1	1.0
Disagree	306	44.9	299	49.7	247	45.6	261	53.5	32	32.7
Strongly disagree	205	30.1	141	23.5	255	47.2	174	35.7	65	66.3
Total	682	100.0	601	100.0	541	100.0	488	100.0	98	100.0

TABLE 49

FREQUENCIES AND PERCENTAGES OF STUDENTS, PARENTS, AND COUNSELORS RESPONDING TO THE STATEMENT, "VOCATIONAL EDUCATION DOES NOT PROVIDE A PRESTIGIOUS CAREER."

Response	Groups Responding									
	Vocational Students		Non-vocational Students		Vocational Parents		Non-vocational Parents		Counselors	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Strongly agree	16	2.4	9	1.5	4	.7	6	1.2	3	3.1
Agree	64	9.4	94	15.7	46	8.5	82	16.9	9	9.2
Undecided	188	27.6	172	28.7	60	11.0	56	11.6	6	6.1
Disagree	284	41.8	266	44.3	312	57.6	279	57.5	59	60.2
Strongly disagree	128	18.8	59	9.8	115	21.2	62	12.8	21	21.4
Total	680	100.0	600	100.0	537	100.0	485	100.0	98	100.0

TABLE 50

FREQUENCIES AND PERCENTAGES OF STUDENTS, PARENTS, AND COUNSELORS RESPONDING TO THE STATEMENT, "VOCATIONAL EDUCATION IS JUST AN EASY WAY TO GET THROUGH SCHOOL AND DOESN'T HAVE REAL BENEFIT."

Response	Groups Responding									
	Vocational Students		Non-vocational Students		Vocational Parents		Non-vocational Parents		Counselors	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Strongly agree	8	1.2	6	1.0	3	.6	5	1.0	1	1.0
Agree	9	1.3	30	5.0	3	.6	24	4.9	2	2.0
Undecided	20	2.9	54	9.0	9	1.7	12	2.5	1	1.0
Disagree	254	37.3	360	59.9	242	44.6	277	57.0	25	25.5
Strongly disagree	390	57.3	151	25.1	285	52.5	168	34.6	69	70.5
Total	681	100.0	601	100.0	542	100.0	486	100.0	98	100.0

TABLE 51

FREQUENCIES AND PERCENTAGES OF STUDENTS, PARENTS, AND COUNSELORS RESPONDING TO THE STATEMENT, "VOCATIONAL EDUCATION CAREERS AREN'T AS CHALLENGING OR INTERESTING AS COLLEGE CAREERS."

	Groups Responding									
	Vocational Students		Non-vocational Students		Vocational Parents		Non-vocational Parents		Counselors	
Response	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Strongly agree	11	1.6	17	2.8	7	1.3	11	2.3	1	1.0
Agree	39	5.7	70	11.6	11	2.0	47	9.7	3	3.1
Undecided	125	18.3	134	22.3	36	6.7	30	6.2	5	5.1
Disagree	300	44.1	290	48.3	286	53.0	276	56.8	43	43.9
Strongly disagree	206	30.3	90	15.0	200	37.0	122	25.0	46	46.9
Total	681	100.0	601	100.0	540	100.0	486	100.0	98	100.0

TABLE 52

FREQUENCIES AND PERCENTAGES OF STUDENTS, PARENTS, AND COUNSELORS RESPONDING TO THE STATEMENT, "ACADEMIC EDUCATION PROGRAMS ARE MORE VALUABLE THAN VOCATIONAL EDUCATION PROGRAMS."

Response	Groups Responding									
	Vocational Students		Non-vocational Students		Vocational Parents		Non-vocational Parents		Counselors	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Strongly agree	5	.7	23	3.8	1	.2	15	3.1	...	....
Agree	36	5.3	92	15.3	20	3.7	50	10.3	4	4.1
Undecided	223	32.8	233	38.8	90	16.6	97	20.0	8	8.2
Disagree	318	46.7	223	37.1	351	64.8	288	59.3	54	55.1
Strongly disagree	99	14.5	30	5.0	80	14.7	36	7.4	32	32.6
Total	681	100.0	601	100.0	543	100.0	486	100.0	98	100.0

TABLE 53

FREQUENCIES AND PERCENTAGES OF STUDENTS, PARENTS, AND COUNSELORS RESPONDING TO THE STATEMENT, "VOCATIONAL EDUCATION LIMITS A STUDENT'S EXPOSURE TO OTHER OCCUPATIONAL CHOICES."

Response	Groups Responding									
	Vocational Students		Non-vocational Students		Vocational Parents		Non-vocational Parents		Counselors	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Strongly agree	19	2.8	18	3.0	4	.7	4	.8	2	2.0
Agree	129	19.0	159	26.5	40	7.4	61	12.6	26	26.5
Undecided	153	22.5	178	29.7	79	14.6	102	21.0	12	12.2
Disagree	312	45.9	222	37.1	358	66.2	292	60.1	47	48.1
Strongly disagree	66	9.8	22	3.7	60	11.1	27	5.5	11	11.2
Total	679	100.0	599	100.0	541	100.0	486	100.0	98	100.0

TABLE 54

FREQUENCIES AND PERCENTAGES OF STUDENTS, PARENTS, AND COUNSELORS RESPONDING TO THE STATEMENT, "VOCATIONAL EDUCATION COSTS TOO MUCH MONEY."

Response	Groups Responding									
	Vocational Students		Non-vocational Students		Vocational Parents		Non-vocational Parents		Counselors	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Strongly agree	9	1.3	6	1.0	3	.6	5	1.0	1	1.0
Agree	15	2.2	26	4.4	16	3.0	21	4.3	6	6.1
Undecided	178	26.2	384	64.3	117	21.6	180	37.0	21	21.4
Disagree	312	45.8	147	24.6	299	55.2	232	47.6	50	51.1
Strongly disagree	167	24.5	34	5.7	106	19.6	49	10.1	20	20.4
Total	681	100.0	597	100.0	541	100.0	487	100.0	98	100.0

TABLE 55

FREQUENCIES AND PERCENTAGES OF STUDENTS, PARENTS, AND COUNSELORS RESPONDING TO THE STATEMENT, "IT IS NOT THE PUBLIC SCHOOL'S RESPONSIBILITY TO PROVIDE VOCATIONAL EDUCATION AT THE HIGH SCHOOL LEVEL."

Response	Groups Responding									
	Vocational Students		Non-vocational Students		Vocational Parents		Non-vocational Parents		Counselors	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Strongly agree	7	1.0	4	.7	5	.9	8	1.6	...	....
Agree	56	8.2	30	5.0	22	4.1	37	7.6	...	....
Undecided	132	19.4	80	13.3	44	8.2	43	8.8	2	2.0
Disagree	257	37.7	284	47.4	270	50.1	260	53.3	27	27.6
Strongly disagree	230	33.7	201	33.6	198	36.7	140	28.7	69	70.4
Total	682	100.0	599	100.0	539	100.0	488	100.0	98	100.0

TABLE 56

FREQUENCIES AND PERCENTAGES OF STUDENTS, PARENTS, AND COUNSELORS RESPONDING TO THE STATEMENT, "PARENTS NEED TO OVERCOME THE NOTION THAT VOCATIONAL EDUCATION IS A SECOND-CLASS EDUCATION."

Response	Groups Responding									
	Vocational Students		Non-vocational Students		Vocational Parents		Non-vocational Parents		Counselors	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Strongly agree	207	30.5	97	16.1	178	32.9	98	20.1	51	52.1
Agree	335	49.2	363	60.6	314	57.9	319	65.5	44	44.9
Undecided	76	11.2	102	17.1	26	4.8	33	6.8	1	1.0
Disagree	51	7.5	31	5.2	20	3.7	32	6.6	1	1.0
Strongly disagree	11	1.6	6	1.0	4	.7	5	1.0	1	1.0
Total	680	100.0	599	100.0	542	100.0	487	100.0	98	100.0

TABLE 57

FREQUENCIES AND PERCENTAGES OF STUDENTS, PARENTS, AND COUNSELORS RESPONDING TO THE STATEMENT, "STUDENTS WITH LOW GRADES TAKE VOCATIONAL EDUCATION COURSES."

Response	Groups Responding									
	Vocational Students		Non-vocational Students		Vocational Parents		Non-vocational Parents		Counselors	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Strongly agree	11	1.6	5	.8	12	2.2	7	1.4	2	2.0
Agree	60	8.8	116	19.3	65	12.0	108	22.3	38	38.8
Undecided	144	21.1	191	31.8	74	13.6	117	24.1	6	6.1
Disagree	323	47.5	241	40.1	287	53.0	223	46.0	41	41.9
Strongly disagree	143	21.0	48	8.0	104	19.2	30	6.2	11	11.2
Total	681	100.0	601	100.0	542	100.0	485	100.0	98	100.0

APPENDIX L

TABLES PERTAINING TO KNOWLEDGE OF VOCATIONAL EDUCATION

TABLE 58

FREQUENCIES AND PERCENTAGES OF STUDENTS AND PARENTS RESPONDING TO THE QUESTION, "HAVE YOU EVER BEEN IN A VOCATIONAL EDUCATION CLASSROOM?"

	Students				Parents			
Frequency	Vocational*		Non-vocational		Vocational		Non-vocational	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Never	60	9.4	316	52.6	264	49.0	242	49.8
Once or twice	62	9.7	138	23.0	137	25.4	119	24.5
Occasionally	76	11.9	63	10.5	80	14.8	84	17.3
Fairly often	264	41.4	61	10.1	38	7.1	30	6.2
Whenever the opportunity is available	176	27.6	23	3.8	20	3.7	11	2.3
Total	638	100.0	601	100.0	539	100.0	486	100.0

*Vocational students were asked to respond as they would have before enrolling in a vocational education course.

TABLE 59

FREQUENCIES AND PERCENTAGES OF STUDENTS, PARENTS, AND COUNSELORS RESPONDING TO THE STATEMENT, "STUDENTS NEED MORE OPPORTUNITY AT THE JUNIOR HIGH LEVEL TO INVESTIGATE WHAT VOCATIONAL EDUCATION PROGRAMS OFFER."

Response	Groups Responding									
	Vocational Students		Non-vocational Students		Vocational Parents		Non-vocational Parents		Counselors	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Strongly agree	212	31.1	136	22.6	174	32.0	130	26.6	46	46.9
Agree	325	47.6	335	55.8	268	49.4	252	51.6	43	43.9
Undecided	100	14.7	76	12.6	62	11.4	51	10.5	6	6.1
Disagree	39	5.7	53	8.8	33	6.1	52	10.7	3	3.1
Strongly disagree	6	.9	1	.2	6	1.1	3	.6	...	....
Total	682	100.0	601	100.0	543	100.0	488	100.0	98	100.0

TABLE 60

FREQUENCIES AND PERCENTAGES OF COUNSELORS RESPONDING TO THE QUESTION, "AT WHAT GRADE LEVEL ARE STUDENTS INFORMED ABOUT VOCATIONAL EDUCATION?"

Grade Level	Counselor Responses	
	Number	Percent
Elementary	1	1.0
Elementary and junior high	1	1.0
Junior high	47	48.0
Junior and senior high	29	29.6
Senior high	16	16.3
K - 12	3	3.1
No response	1	1.0
Total	98	100.0

APPENDIX M

TABLES RELATIVE TO WHO SHOULD TAKE VOCATIONAL EDUCATION

TABLE 61

FREQUENCIES AND PERCENTAGES OF STUDENTS, PARENTS, AND COUNSELORS RESPONDING TO THE STATEMENT, "VOCATIONAL EDUCATION IS FOR THOSE WHO AREN'T GOOD AT ANYTHING ELSE."

Response	Groups Responding									
	Vocational Students		Non-vocational Students		Vocational Parents		Non-vocational Parents		Counselors	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Strongly agree	6	.9	9	1.5	8	1.5	5	1.0	...	....
Agree	16	2.3	30	5.0	11	2.0	23	4.7	...	....
Undecided	45	6.6	49	8.2	14	2.6	21	4.3	...	....
Disagree	295	43.3	350	58.2	256	47.1	259	53.2	22	22.4
Strongly disagree	320	46.9	163	27.1	254	46.8	179	36.8	76	77.6
Total	682	100.0	601	100.0	543	100.0	487	100.0	98	100.0

TABLE 62

FREQUENCIES AND PERCENTAGES OF STUDENTS, PARENTS, AND COUNSELORS RESPONDING TO THE STATEMENT, "A STUDENT WHO IS QUALIFIED FOR COLLEGE SHOULD BE DISCOURAGED FROM ENTERING A VOCATIONAL EDUCATION CAREER."

Response	Groups Responding									
	Vocational Students		Non-vocational Students		Vocational Parents		Non-vocational Parents		Counselors	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Strongly agree	9	1.3	9	1.5	5	.9	11	2.3	...	....
Agree	37	5.4	69	11.5	17	3.1	54	11.1	2	2.0
Undecided	107	15.7	137	22.8	63	11.6	70	14.3	3	3.1
Disagree	375	55.0	329	54.7	380	70.1	313	64.1	63	64.3
Strongly disagree	154	22.6	57	9.5	77	14.3	40	8.2	30	30.6
Total	682	100.0	601	100.0	542	100.0	488	100.0	98	100.0

TABLE 63

FREQUENCIES AND PERCENTAGES OF STUDENTS, PARENTS, AND COUNSELORS RESPONDING TO THE STATEMENT, "VOCATIONAL EDUCATION SHOULD BE EMPHASIZED ONLY FOR STUDENTS WHO CAN'T SUCCEED IN AN ACADEMIC SITUATION."

Response	Groups Responding									
	Vocational Students		Non-vocational Students		Vocational Parents		Non-vocational Parents		Counselors	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Strongly agree	5	.7	11	1.8	5	.9	10	2.0	...	....
Agree	39	5.7	62	10.3	15	2.8	45	9.2	1	1.0
Undecided	78	11.5	101	16.9	27	5.0	31	6.4	...	....
Disagree	372	54.6	352	58.7	361	66.4	337	69.1	36	36.8
Strongly disagree	187	27.5	74	12.3	135	24.9	65	13.3	61	62.2
Total	681	100.0	600	100.0	543	100.0	488	100.0	98	100.0

APPENDIX N

TABLES CONCERNING INFLUENCING FACTORS ON TAKING VOCATIONAL EDUCATION

TABLE 64

FREQUENCIES AND PERCENTAGES OF PARENTS AND COUNSELORS RESPONDING TO THE QUESTION, "WHO HAS THE MOST INFLUENCE ON A STUDENT'S CAREER DECISION?"

	Parents					
Influencing Persons	Vocational		Non-vocational		Counselors	
	Number	Percent	Number	Percent	Number	Percent
Parents	209	38.5	243	49.7	66	67.1
Peers	51	9.4	67	13.8	15	15.3
Counselors	57	10.5	32	6.6	...	....
Teachers	51	9.4	44	9.0	2	2.3
Other family members	17	3.1	9	1.8	4	4.1
Others	17	3.1	15	3.1	7	7.1
More than one	84	15.5	36	7.4	...	....
Child's own choice	33	6.1	29	5.9	...	....
No response	24	4.4	13	2.7	4	4.1
Total	543	100.0	488	100.0	98	100.0

TABLE 65

FREQUENCIES AND PERCENTAGES OF RESPONSES TO THE QUESTION, "WHO INFLUENCES THE STUDENT MOST CONCERNING ENROLLING IN A VOCATIONAL PROGRAM?"

Influencing Persons	Vocational Students		Non-vocational Students	
	Number	Percent	Number	Percent
Guidance counselor	71	11.0	48	10.5
Friends own age	135	21.0	84	18.3
Parents (or guardian)	80	12.5	96	20.9
Other family members	49	7.6	33	7.2
Teachers	24	3.7	9	2.0
Others	23	3.6	39	8.5
Myself	238	37.0	150	32.6
No one	23	3.6	...	....
Total	643	100.0	459	100.0

TABLE 66

FREQUENCIES AND PERCENTAGES OF STUDENT RESPONSES TO THE STATEMENT, "MY PARENTS DON'T CARE WHAT COURSES I TAKE."

	Vocational Students		Non-vocational Students	
Responses	Number	Percent	Number	Percent
Strongly agree	12	1.8	13	2.2
Agree	84	12.4	72	12.0
Uncertain	152	22.4	81	13.5
Disagree	312	45.9	253	42.2
Strongly disagree	119	17.5	181	30.1
Total	679	100.0	600	100.0

TABLE 67

FREQUENCIES AND PERCENTAGES OF STUDENT RESPONSES TO THE STATEMENT, "MY PARENTS WOULD LIKE TO HAVE ME TAKE A VOCATIONAL EDUCATION COURSE."

Responses	Vocational Students Number	Vocational Students Percent	Non-vocational Students Number	Non-vocational Students Percent
Strongly agree	130	19.3	21	3.5
Agree	322	48.0	96	16.1
Uncertain	195	29.0	372	62.1
Disagree	18	2.7	80	13.3
Strongly disagree	7	1.0	30	5.0
Total	672	100.0	599	100.0

TABLE 68

FREQUENCIES AND PERCENTAGES OF STUDENT RESPONSES TO THE STATEMENT, "MY COUNSELOR TALKED ME OUT OF TAKING A VOCATIONAL EDUCATION COURSE."

	Vocational Students		Non-vocational Students	
Responses	Number	Percent	Number	Percent
Definitely	11	1.6	24	4.1
Tried to	32	4.7	9	1.5
Hinted at it	34	5.1	13	2.2
Did not try	599	88.6	542	92.2
Total	676	100.0	588	100.0

TABLE 69

FREQUENCIES AND PERCENTAGES OF STUDENT RESPONSES TO THE STATEMENT, "MY FRIENDS TALKED ME OUT OF TAKING A VOCATIONAL EDUCATION COURSE."

	Vocational Students		Non-vocational Students	
Responses	Number	Percent	Number	Percent
Definitely	16	2.4	24	4.1
Tried to	21	3.1	9	1.5
Hinted at it	32	4.7	13	2.2
Did not try	606	89.8	542	92.2
Total	675	100.0	588	100.0

APPENDIX O

TABLES REGARDING CHANGES IN VOCATIONAL EDUCATION PROGRAMS

TABLE 70

FREQUENCIES AND PERCENTAGES OF STUDENTS, PARENTS, AND COUNSELORS RESPONDING TO THE STATEMENT, "VOCATIONAL EDUCATION SHOULD BE OFFERED AS A CONTINUING PROGRAM FROM GRADES KINDERGARTEN THROUGH TWELVE."

Response	Groups Responding									
	Vocational Students		Non-vocational Students		Vocational Parents		Non-vocational Parents		Counselors	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Strongly agree	23	3.4	33	5.5	23	4.2	19	3.9	26	26.7
Agree	94	13.8	139	23.1	151	28.0	141	23.0	38	39.2
Undecided	181	26.6	153	25.5	155	28.8	126	25.8	15	15.5
Disagree	306	45.0	216	35.9	173	32.1	178	36.6	15	15.5
Strongly disagree	76	11.2	60	10.0	37	6.9	23	4.7	3	3.1
Total	680	100.0	601	100.0	539	100.0	487	100.0	97	100.0

TABLE 71

FREQUENCIES AND PERCENTAGES OF STUDENTS, PARENTS, AND COUNSELORS RESPONDING TO THE STATEMENT, "VOCATIONAL EDUCATION COURSES AND ACADEMIC COURSES SHOULD BE INTEGRATED INTO A COMMON CURRICULUM."

Response	Groups Responding									
	Vocational Students		Non-vocational Students		Vocational Parents		Non-vocational Parents		Counselors	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Strongly agree	62	9.2	46	7.7	73	13.6	63	13.0	25	25.5
Agree	285	42.1	246	41.1	305	56.7	246	50.7	50	51.1
Undecided	269	39.7	222	37.1	119	22.1	106	21.9	19	19.4
Disagree	51	7.5	69	11.5	36	6.7	64	13.2	4	4.0
Strongly disagree	10	1.5	16	2.7	5	.9	6	1.2	...	....
Total	677	100.0	599	100.0	538	100.0	485	100.0	98	100.0

TABLE 72

FREQUENCIES AND PERCENTAGES OF STUDENTS, PARENTS, AND COUNSELORS RESPONDING TO THE STATEMENT, "SOME VOCATIONAL EDUCATION COURSES SHOULD BE REQUIRED FOR HIGH SCHOOL GRADUATION."

Response	Groups Responding									
	Vocational Students		Non-vocational Students		Vocational Parents		Non-vocational Parents		Counselors	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Strongly agree	33	4.8	34	5.7	42	7.7	29	6.0	14	14.3
Agree	164	24.1	178	29.6	231	42.9	230	47.3	32	32.6
Undecided	146	21.5	113	18.8	131	24.3	99	20.4	19	19.4
Disagree	274	40.3	187	31.1	120	22.3	116	23.8	27	27.6
Strongly disagree	63	9.3	89	14.8	15	2.8	12	2.5	6	6.1
Total	680	100.0	601	100.0	539	100.0	486	100.0	98	100.0

TABLE 73

FREQUENCIES AND PERCENTAGES OF STUDENTS, PARENTS, AND COUNSELORS RESPONDING TO THE STATEMENT, "HIGH SCHOOL GRADUATION REQUIREMENTS SHOULD BE MODIFIED TO ENABLE MORE STUDENTS TO TAKE VOCATIONAL EDUCATION."

Response	Groups Responding									
	Vocational Students		Non-vocational Students		Vocational Parents		Non-vocational Parents		Counselors	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Strongly agree	144	21.1	62	10.3	80	14.8	57	11.7	21	21.4
Agree	320	47.0	272	45.4	294	54.3	266	54.6	29	29.6
Undecided	135	19.9	164	27.4	90	16.6	86	17.7	16	16.3
Disagree	75	11.0	90	15.0	74	13.7	68	14.0	26	26.6
Strongly disagree	7	1.0	12	2.0	3	.6	10	2.0	6	6.1
Total	681	100.0	600	100.0	541	100.0	487	100.0	98	100.0

TABLE 74

FREQUENCIES AND PERCENTAGES OF STUDENT RESPONSES TO THE STATEMENT, "I WOULD RATHER TAKE A VOCATIONAL EDUCATION COURSE AFTER I LEAVE HIGH SCHOOL THAN NOW."

	Vocational Students		Non-vocational Students	
Responses	Number	Percent	Number	Percent
Strongly agree	16	2.4	17	2.8
Agree	29	4.4	67	11.1
Uncertain	118	17.8	272	45.4
Disagree	315	47.4	167	27.9
Strongly disagree	186	28.0	77	12.8
Total	664	100.0	600	100.0

APPENDIX P

TABLES PERTAINING TO PROFILE OF STUDENTS AND FAMILY

TABLE 75

FREQUENCIES AND PERCENTAGES OF ETHNIC GROUPS AS REPORTED BY STUDENTS

Ethnic Background	Vocational Students		Non-vocational Students	
	Number	Percent	Number	Percent
White	557	81.7	521	88.6
Black	7	1.0	5	.9
Mexican-American	89	13.0	45	7.7
Indian-American	10	1.5	11	1.8
Asian-American	7	1.0	6	1.0
Other	12	1.8	...	....
Total	682	100.0	588	100.0

TABLE 76

FREQUENCIES AND PERCENTAGES OF FAMILY INCOME AS REPORTED BY STUDENTS

Family Income	Vocational Students		Non-vocational Students	
	Number	Percent	Number	Percent
No idea	286	43.7	234	39.4
Less than $3,000	8	1.2	8	1.3
$3,000 to $4,999	14	2.1	6	1.0
$5,000 to $6,999	21	3.2	8	1.3
$7,000 to $8,999	29	4.4	18	3.0
$9,000 to $10,999	54	8.2	36	6.0
$11,000 to $12,999	62	9.5	56	9.4
$13,000 to $14,999	58	8.9	50	8.4
Over $15,000	123	18.8	180	30.2
Total	655	100.0	596	100.0

TABLE 77

FREQUENCIES AND PERCENTAGES OF OCCUPATIONS OF PARENTS

Occupations	Fathers				Mothers			
	Vocational		Non-vocational		Vocational		Non-vocational	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Agriculture	34	6.3	33	6.8	...	.....	1	.2
Business or office	18	3.3	78	16.0	113	20.8	99	20.3
Services	70	12.9	69	14.1	21	3.9	35	7.2
Health	4	.7	3	.6	38	7.0	37	7.6
Home economics	4	.7	2	.4	26	4.8	21	4.3
Technical	41	7.6	63	12.9	2	.4	5	1.0
Trades and industries	215	39.5	82	16.8	26	4.8	3	.6
Professional	77	14.2	96	19.7	39	7.2	44	9.0
Others (not in regular work force	40	7.4	8	1.6	233	42.8	196	40.2
No response	40	7.4	54	11.1	45	8.3	47	9.6
Total	543	100.0	488	100.0	543	100.0	488	100.0

TABLE 78

FREQUENCIES AND PERCENTAGES OF EDUCATIONAL BACKGROUND OF PARENTS

Educational Background	Fathers Vocational Number	Fathers Vocational Percent	Fathers Non-vocational Number	Fathers Non-vocational Percent	Mothers Vocational Number	Mothers Vocational Percent	Mothers Non-vocational Number	Mothers Non-vocational Percent
Did not graduate from high school	123	22.8	44	9.0	104	19.1	56	11.5
High school graduate	130	23.9	102	20.8	224	41.2	158	32.4
Trade or vocational school or community college, not completed	36	6.6	16	3.3	26	4.8	15	3.1
Entered college, but did not complete	59	10.9	56	11.5	56	10.3	89	18.2
Completed vocational or trade school or community college	68	12.5	39	8.0	64	11.8	44	9.0
Completed 4 years of college or university	54	9.9	98	20.1	32	5.9	83	17.0
Received master's degree	17	3.1	51	10.5	9	1.7	13	2.7
Received graduate degree beyond master's	10	1.8	37	7.6	2	.4	3	.6
No response	46	8.5	45	9.2	26	4.8	27	5.5
Total	543	100.0	488	100.0	543	100.0	488	100.0

TABLE 79

FREQUENCIES AND PERCENTAGES OF GRADE AVERAGES AS REPORTED BY STUDENTS

Grade Average	Vocational Students		Non-vocational Students	
	Number	Percent	Number	Percent
A	3	.4	50	8.3
AB	51	7.5	166	27.6
B	81	11.9	101	16.8
BC	270	39.7	165	27.5
C	180	26.4	72	12.0
CD	88	12.9	41	6.8
D	8	1.2	6	1.0
Total	681	100.0	601	100.0

APPENDIX Q

TABLES REFLECTING PARENTS' FEELINGS ABOUT FURTHER EDUCATION

TABLE 80

FREQUENCIES AND PERCENTAGES OF THOUGHT GIVEN TO FUTURE JOB AND EMPLOYMENT BY VOCATIONAL AND NON-VOCATIONAL STUDENTS

Thought Given to Future Job and Employment	Vocational Students		Non-vocational Students	
	Number	Percent	Number	Percent
A great deal	292	43.0	258	43.1
A lot	207	30.5	168	28.0
Some	137	20.2	131	21.9
Not much	19	2.8	11	1.8
Confused about plans	24	3.5	31	5.2
Total	679	100.0	599	100.0

TABLE 81

FREQUENCIES AND PERCENTAGES OF CERTAINTY CONCERNING FUTURE PLANS OF VOCATIONAL AND NON-VOCATIONAL STUDENTS

Degree of Certainty	Vocational Students		Non-vocational Students	
	Number	Percent	Number	Percent
Yes, I know	347	50.9	295	49.3
I think I know	199	29.3	184	30.7
Undecided	135	19.8	120	20.0
Total	681	100.0	599	100.0

TABLE 82

FREQUENCIES AND PERCENTAGES OF WHEN FUTURE WAS DECIDED BY VOCATIONAL AND NON-VOCATIONAL STUDENTS

When Decision Was Made	Vocational Students		Non-vocational Students	
	Number	Percent	Number	Percent
Elementary school	13	1.9	32	5.3
Junior high	107	15.9	149	24.8
Senior high	363	53.8	260	43.4
Undecided	192	28.4	159	26.5
Total	675	100.0	600	100.0

TABLE 83

FREQUENCIES AND PERCENTAGES REPORTED BY STUDENTS TO THE STATEMENT, "MY PARENTS AND I HAVE DISCUSSED MY FUTURE PLANS."

Amount of Discussion	Vocational Students		Non-vocational Students	
	Number	Percent	Number	Percent
Quite a bit	122	18.0	147	24.5
Some	342	50.4	294	48.9
Very little	142	20.8	116	19.3
None	73	10.8	44	7.3
Total	679	100.0	601	100.0

TABLE 84

FREQUENCIES AND PERCENTAGES AS REPORTED BY STUDENTS TO THE QUESTION, "HOW IMPORTANT IS YOUR CHOICE OF CAREER TO YOUR PARENTS?"

Importance to Parents of Career Choice	Vocational Students		Non-vocational Students	
	Number	Percent	Number	Percent
Very important	194	28.7	134	22.3
Quite important	172	25.4	166	27.7
Fairly important	180	26.6	179	29.9
Not very important	42	6.2	51	8.5
Not important at all	14	2.1	11	1.8
Really don't know	75	11.0	59	9.8
Total	677	100.0	600	100.0

TABLE 85

FREQUENCIES AND PERCENTAGES OF STUDENTS AND PARENTS CONCERNING ADDITIONAL EDUCATION

Importance	Importance to Parents							
	Student Replies				Parent Replies			
	Vocational		Non-vocational		Vocational		Non-vocational	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Very important	117	17.2	211	35.2	204	38.1	219	45.1
Quite important	130	19.1	164	27.4	115	21.5	150	30.9
Fairly important	210	30.9	114	19.1	142	26.5	80	16.5
Not very important	63	9.2	41	6.8	38	7.1	26	5.3
Not important at all	30	4.4	11	1.8	12	2.2	6	1.2
Really don't know	130	19.2	59	9.7	...	....	...	...
No opinion	...	....	...	....	25	4.6	5	1.0
Total	680	100.0	600	100.0	536	100.0	486	100.0

TABLE 86

FREQUENCIES AND PERCENTAGES AS REPORTED BY STUDENTS CONCERNING IMPORTANCE OF COLLEGE EDUCATION

Importance of College Education to Parents	Vocational Students		Non-vocational Students	
	Number	Percent	Number	Percent
Take it for granted student will go to college	27	4.0	126	21.1
Actively urge student to go to college	131	19.4	210	35.1
Say it is up to student	361	53.4	187	31.3
Parents have mixed feelings about college attendance by student	25	3.7	19	3.2
Parents somewhat opposed to college attendance by student	22	3.3	8	1.3
Don't know	110	16.3	48	8.0
Total	676	100.0	598	100.0

TABLE 87

FREQUENCIES AND PERCENTAGES CONCERNING FEELINGS ABOUT COLLEGE EDUCATION BY STUDENTS AND BY PARENTS

Importance	Importance to Parents							
	Student Replies				Parent Replies			
	Vocational		Non-vocational		Vocational		Non-vocational	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Very important	54	8.0	156	26.0	81	14.9	146	30.1
Quite important	69	10.2	146	24.4	79	14.5	125	25.8
Fairly important	182	26.8	148	24.7	163	30.1	122	25.2
Not very important	125	18.4	43	7.2	142	26.2	72	14.8
Not important at all	73	10.8	28	4.7	45	8.3	13	2.7
Really don't know	175	25.8	78	13.0	...	....	...	....
No opinion	...	....	...	....	29	5.3	7	1.4
No response	...	....	...	....	4	.7	...	....
Total	678	100.0	599	100.0	543	100.0	485	100.0

TABLE 88

FREQUENCIES AND PERCENTAGES OF EDUCATIONAL PLANS FOR STUDENT BEYOND HIGH SCHOOL

Educational Plans Beyond High School	Student Replies				Parent Replies			
	Vocational		Non-vocational		Vocational		Non-vocational	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
College or university (4 years)	90	13.3	373	62.9	96	17.7	304	63.3
Community college	49	7.3	33	5.6	53	9.8	45	9.4
Technical or trade school	173	25.5	27	4.6	137	25.3	23	4.8
Business school	10	1.5	21	3.5	6	1.1	7	1.4
Armed Forces	104	15.3	26	4.4	27	5.0	6	1.2
Other	89	13.1	27	4.5	96	17.7	11	2.4
Really don't know	163	24.0	86	14.5	102	18.8	62	12.9
None of these	...	....	...	....	11	2.0	9	1.8
Several children	...	....	...	....	14	2.6	13	2.8
Total	678	100.0	593	100.0	542	100.0	480	100.0

TABLE 89

FREQUENCIES AND PERCENTAGES RELATED TO THE PARENTS' FEELINGS ABOUT THEIR CHILDREN IN VOCATIONAL EDUCATION CLASSES

Response	Do you think your child or children would profit from having some vocational training (job preparation) while in high school?				Would you oppose your child's decision to enroll in vocational education courses in high school (to prepare for the world of work)?			
	Vocational Parent		Non-vocational Parent		Vocational Parent		Non-vocational Parent	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Yes	539	99.2	438	89.8	19	3.5	38	7.8
No	3	.6	46	9.4	521	95.9	426	87.5
No opinion	...	....	...	....	3	.6	23	4.7
No response	1	.2	4	.8	...	....	...	....
Total	543	100.0	488	100.0	543	100.0	487	100.0

TABLE 90

FREQUENCIES AND PERCENTAGES OF SATISFACTION WITH CHILD'S CHOICE FOR LIFE'S WORK AS REPORTED BY PARENTS

Response	Vocational Parents		Non-vocational Parents	
	Number	Percent	Number	Percent
Yes	410	75.5	367	75.2
No	20	3.7	20	4.1
No opinion	101	18.6	100	20.5
No response	12	2.2	1	.2
Totals	543	100.0	488	100.0

APPENDIX R

TABLES ASSOCIATED WITH COUNSELORS' PROFILE

TABLE 91

FREQUENCIES AND PERCENTAGES OF COUNSELORS BY AGE GROUP

Age	Number	Percent
20 - 24	1	1.0
25 - 29	6	6.1
30 - 35	17	17.3
36 - 45	44	44.9
Over 45	29	29.7
No response	1	1.0
Total	98	100.0

TABLE 92

FREQUENCIES AND PERCENTAGES OF COUNSELORS BY SEX

Sex	Number	Percent
Male	53	54.1
Female	45	45.9
Total	98	100.0

TABLE 93

FREQUENCIES AND PERCENTAGES OF COUNSELORS CONCERNING PREVIOUS MAJOR AREA OF TEACHING EXPERIENCE

Major Area of Teaching	Number	Percent
English	19	19.4
Social Science	27	27.6
Practical Arts	13	13.3
Science	7	7.1
Mathematics	7	7.1
Fine Arts	5	5.1
Physical Education	10	10.2
No Response	10	10.2
Total	98	100.0

TABLE 94

NUMBER OF YEARS TEACHING EXPERIENCE PRIOR TO COUNSELING

Years of Teaching Experience	Number	Percent
None	..	....
1 - 3 years	18	18.4
4 - 6 years	34	34.7
7 - 10 years	24	24.5
Over 10 years	22	22.4
Total	98	100.0

TABLE 95

FREQUENCY AND PERCENTAGES OF COUNSELORS RELATED TO NUMBER OF YEARS IN COUNSELING

Number of Years in Counseling	Number	Percent
Less than 1 year	5	5.1
1 - 3 years	14	14.3
4 - 8 years	39	39.8
9 - 12 years	23	23.5
More than 12 years	17	17.3
Total	98	100.0

TABLE 96

FREQUENCIES AND PERCENTAGES OF AMOUNT OF TIME SPENT COUNSELING AS REPORTED BY COUNSELORS

Amount of Time Spent Counseling	Number	Percent
Full time	85	86.8
Less than full time; more than half time	7	7.1
Half time	2	2.0
Less than half time	4	4.1
Total	98	100.0

TABLE 97

NUMBERS AND PERCENTAGES OF COUNSELEES ASSIGNED TO COUNSELORS

Number of Counselees	Number	Percent
0 - 100	3	3.1
101 - 200	3	3.1
201 - 300	22	22.7
301 - 400	63	64.9
401 - 500	6	6.2
Total	97	100.0

TABLE 98

FREQUENCIES AND PERCENTAGES OF COUNSELORS RESPONDING TO THE QUESTION,"HOW ARE COUNSELEES ASSIGNED TO YOU?"

Method	Number	Percent
Random choice	8	8.2
Random, by grade	3	3.1
Sex	...	....
Alphabetical order	77	78.5
Other	9	9.2
No response	1	1.0
Total	98	100.0

TABLE 99

NUMBERS AND PERCENTAGES OF COUNSELEES ENROLLED IN VOCATIONAL EDUCATION

Number of Counselees	Number of Counselors Responding	Percent
0 - 10	3	3.6
11 - 20	20	24.2
21 - 30	16	19.4
31 - 40	13	15.8
41 - 50	13	15.8
51 - 60	5	6.0
61 - 70	1	1.0
71 - 80	1	1.0
81 - 90	2	2.4
91 - 100	9	10.8
Total	83	100.0

TABLE 100

FREQUENCIES AND PERCENTAGES OF COUNSELORS RESPONDING TO THE STATEMENT, "TOTAL AMOUNT OF TIME YOU HAVE WORKED FULL TIME IN A JOB OTHER THAN EDUCATION."

Years	Number	Percent
None	7	7.2
Less than 1 year	2	2.0
1 - 2 years	29	26.6
3 - 5 years	30	30.6
More than 5 years	30	30.6
Total	98	100.0

TABLE 101

FREQUENCIES AND PERCENTAGES OF COUNSELORS BY VOCATIONAL EDUCATION BACKGROUND

Kind of Background	Number	Percent
None	41	41.9
Took high school vocational education--did not work in trade	6	6.1
Took post high school vocational education--did not work in trade	10	10.2
Took high school vocational education--worked in trade	17	17.3
Took post high school vocational education--worked in trade	23	23.5
No response	1	1.0
Total	98	100.0

TABLE 102

FREQUENCIES AND PERCENTAGES OF COUNSELORS' EXPERIENCE WITH VOCATIONAL EDUCATION

Experience	Number	Percent
Have visited the vocational education classes in the school	18	18.8
Have spent some time observing the vocational education classes in the school	28	29.2
Have looked into the various vocational education programs to see what is taught and how	45	46.8
Have not been able to visit the vocational education classrooms	2	2.1
Other	3	3.1
Total	96	100.0

APPENDIX S

TABLE CONCERNED WITH COUNSELORS' VIEWS OF PARENTS' ATTITUDES

TABLE 103

AVERAGE MEAN SCORE FOR EACH ATTITUDE STATEMENT FOR VOCATIONAL PARENTS, NON-VOCATIONAL PARENTS, AND COUNSELORS' VIEWS OF PARENTS' ATTITUDES

Attitude Statement	Vocational Parents' Attitudes	Non-vocational Parents' Attitudes	Counselors' Views of Parents' Attitudes
	Mean	Mean	Mean
1. In the present job market, vocational education is becoming increasingly valuable.	3.554	3.338	2.898
2. Students need more opportunity at the junior high level to investigate what vocational education programs offer.	3.085	2.949	2.571
3. Vocational education is for those who aren't good at anything else.	3.357	3.199	2.204
4. Vocational education will help solve problems caused by unemployment.	2.757	2.592	2.367
5. Students with low grades take vocational education courses.	2.749	2.332	1.327
6. Vocational education is better for many students than college.	3.280	3.186	2.480

TABLE 103--(continued)

Attitude Statement	Vocational Parents' Attitudes Mean	Non-vocational Parents' Attitudes Mean	Counselors' Views of Parents' Attitudes Mean
7. Vocational education does not provide a prestigious career.	2.909	2.637	1.602
8. It is not the public school's responsibility to provide vocational education at the high school level.	3.176	2.998	2.867
9. High school graduation requirements should be modified to enable more students to take vocational education.	2.708	2.661	2.051
10. Working with one's hands is not as worthwhile as working with one's mind.	3.344	3.168	2.214
11. Vocational education careers aren't as challenging or interesting as college careers.	3.224	2.928	2.031
12. Vocational education is just an easy way to get through school and doesn't have real benefit.	3.482	3.191	2.480

TABLE 103--(continued)

Attitude Statement	Vocational Parents' Attitudes Mean	Non-vocational Parents' Attitudes Mean	Counselors' Views of Parents' Attitudes Mean
13. Students who take vocational education have a better chance to find employment than students who go to college.	2.240	1.955	1.755
14. A student who is qualified for college should be discouraged from entering a vocational education career.	2.935	2.650	1.786
15. Sound vocational education is the foundation of a healthy economy.	2.915	2.688	2.276
16. Vocational education limits a student's exposure to other occupational choices.	2.795	2.570	1.908
17. Vocational education should be emphasized only for students who can't succeed in an academic situation.	3.116	2.824	2.184
18. Academic education programs are more valuable than vocational education programs.	2.902	2.576	1.918

TABLE 103--(continued)

	Attitude Statement	Vocational Parents' Attitudes Mean	Non-vocational Parents' Attitudes Mean	Counselors' Views of Parents' Attitudes Mean
19.	Vocational education should be offered as a continuing program from grades kindergarten through twelve.	2.113	2.049	2.103
20.	Parents need to overcome the notion that vocational education is a second-class education.	3.207	3.002	2.388
21.	Some vocational education courses should be required for high school graduation.	2.390	2.379	1.816
22.	More information is needed to inform parents and students of the opportunities and benefits of vocational education.	3.256	3.160	2.827
23.	Vocational education costs too much money.	2.904	2.614	1.959
24.	Vocational education courses and academic courses should be integrated into a common curriculum.	2.781	2.647	2.245